



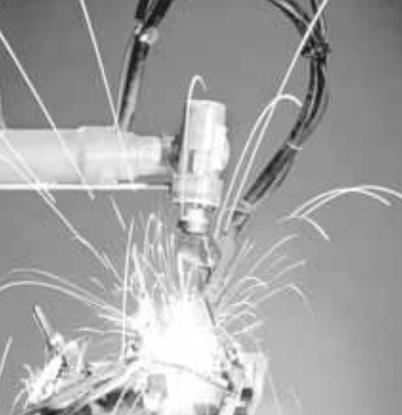
# INDUSTRIAL HOSE

## 1300 RUBBER

[aus\\_ep@veyance.com](mailto:aus_ep@veyance.com)

[www.goodyearep.com.au](http://www.goodyearep.com.au)





# VEYANCE AUSTRALIA



## **BAYSWATER (VIC)**

7 Dunlop Ct, Bayswater VIC 3153  
PH. 03 9721 0609 FAX. 03 9720 9428



## **BRISBANE (QLD)**

Unit 6, 237 Fleming Rd, Hemmant QLD 4174  
PH. 07 3907 0767 FAX. 07 3907 0547



## **PERTH (WA)**

73 Boulder Rd, Malaga WA 6090  
PH. 08 9287 0300 FAX. 08 9387 4274



## **PARRAMATTA (NSW)**

Level 3, 470 Church St, Nth Parramatta NSW 2151  
PH. 02 8839 9600 FAX. 02 9890 8973



## **MACKAY (QLD)**

15 Corporate Drv / PO Box 1634 Paget QLD 4740  
PH. 07 4841 9800 FAX. 07 4998 5509



## **KARRATHA (WA)**

106 Woodbrook Estate, Karratha WA 6714  
PH. 08 9186 0500 FAX. 08 9185 4731

## **CAPABILITIES**

We bring more to the table than great products - we bring great people. Nationwide, our highly-trained Goodyear Engineered Products Authorized Distributors (GADs) are engaged in our customers' businesses in a way that continually raises the bar for service and support standards. In addition, you get access to leading technologies like our Hose Trakker software and RFID-enhanced hose assemblies, plus patented Insta-Lock cam and groove couplings give you the tools to monitor and maximize product performance. Worldwide, we operate 30 facilities and have approximately 7,000 associates who all do their personal best each day to create, deliver and support every industrial hose product we make.

Here in Australia, we have dedicated support staff looking after each state and territory who are always available to support our customer's needs in the marketplace. With the broadest industrial hose range in the business, we manufacture premium quality hoses that include names such as Gorilla, ORTAC, Chem-One, Extremeflex, ARTRAC to name a few. This combined with strong local inventory support plus a hose fitting centre in Bayswater, Victoria which gives us the ability to crimp and swage (internal & external) hose assemblies for critical applications found in the oil and gas, food and beverage, and building and construction industries. A true One Source One Solution industrial hose manufacturer, with Goodyear Engineered Products – accelerate your business.

# GOOD PEOPLE. INNOVATIVE TECHNOLOGIES. SMART SOLUTIONS.



**AIR  
SPRINGS**



**INDUSTRIAL  
HOSE**



**CONVEYOR  
BELTING**



**SHEET  
RUBBER**



**AUTOMOTIVE  
REPLACEMENT  
PRODUCTS**



**POWER  
TRANSMISSION  
PRODUCTS**

FOR MORE ON OUR WIDE RANGE OF PRODUCTS CALL **1300 RUBBER**



# SELECTING THE PROPER HOSE ASSEMBLY

In order to obtain the best service from any particular hose application, two important conditions must be fulfilled:

**01 Select the right hose for the job.**

**02 Make sure that it is fitted correctly and used in the proper manner.**

Carefully consider the application requirements. A helpful guide is the 'Stamped' process. 'Stamped' is an acronym and stands for the seven major information areas required to provide a quality assembly.

- S** **SIZE** - ID, OD, and length of the assembly
- T** **TEMPERATURE** - includes temperature of fluid conveyed and the climactic conditions
- A** **APPLICATION** - the conditions of use, including abrasion, flexing, and routing
- M** **MATERIAL** - type of material conveyed including composition and concentration
- P** **PRESSURE** - hose assembly working pressure and surge or back pressure
- E** **ENDS** - definition of the fitting including thread type, gender, bent tube, swivel and orientation
- D** **DELIVERY** - time allowed for delivery including testing, quality assurance and packaging

To assist in obtaining and conveying information regarding the application, a copy of the "Stamped" application form is included in this catalogue. This inquiry sheet can be sent to any Goodyear authorized distributor for a hose recommendation.

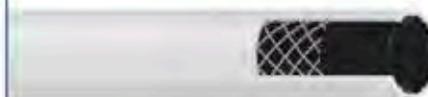
**PLEASE NOTE:** A hose should always be selected based on its rated working pressure. Do not use minimum burst pressure as a guideline in selecting the hose. Minimum burst pressure decreases over the use and life of the hose. A hose should be selected based on its rated working pressure to provide a normal service life. In addition, always select a hose by giving consideration to its recommended temperature limits. Hose service life is reduced if the temperatures of the fluids being conveyed or ambient temperatures exceed the recommended limits.

# HOW TO USE THIS DOCUMENT

## AIR & MULTIPURPOSE - GENERAL PURPOSE

1.05

### RED HORIZON®



#### Product Specifications

**APPLICATION:** An economical air and water hose, Horizon® is for a wide range of industrial, construction and agricultural applications.

**CONSTRUCTION TUBE:** Versigard® synthetic rubber, RMA Class C (Limited Oil Resistance)

**COVER:** Red Versigard® synthetic rubber

**REINFORCEMENT:** Spiral synthetic yarn, 2" is braided

**TEMPERATURE:** -40°C to 88°C

**BRANDING:** Example: 1/2" Horizon® Goodyear® 300 psi WF

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 569-011

### RED HORIZON®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg/m.	m.
20025735	1/4	6	0.50	12.7	200	1.38	0.08	0.12	152.4
20025750	3/8	10	0.67	17.0	200	1.38	0.15	0.22	152.4
20025773	1/2	12	0.81	20.6	200	1.38	0.20	0.30	152.4
20025799	3/4	19	1.12	28.5	200	1.38	0.34	0.21	152.4
20025966	1	25	1.48	37.3	200	1.38	0.58	0.86	137.2

Versigard® is a registered trademark of The Goodyear® Tire & Rubber Company.

#### PRODUCT NO.

When checking stock or placing an order, use this code.

**GOODYEAR**  
ENGINEERED PRODUCTS

**GOODYEAR**  
ENGINEERED PRODUCTS

# APPLICATION WARNING

**The products in this catalogue have been tested under controlled laboratory conditions to meet specific test criteria. These tests are not intended to reflect the performance of the product or any other material in any specific application, but are intended to provide the user with application guidelines. The products are intended for use by knowledgeable persons having the technical skills necessary to evaluate their suitability for specific applications.**

Since Veyance Technologies, Inc. has no control over the number and variety of applications for which its products may be purchased or the conditions under which its products may be used by others, Veyance Technologies assumes no responsibility for performance results and applications. This catalogue, however, contains available information to allow the user to determine the product's acceptability and fitness for specific applications. No statement contained herein shall be construed as a license to operate, or as a recommendation or inducement to infringe existing patents or as an endorsement of products

of specific manufacturers or systems. Failure to follow procedures for selection, installation, care, maintenance and storage of hoses may result in the hose's failure to perform properly and may result in damage to property and/or serious injury. Please refer to the General Information section of the catalogue for hose care, maintenance, and storage information.

All product design, dimensional, and general information in this catalogue is subject to change without prior notice. Working pressures and other technical information have been prepared from actual test results and other data considered to be reliable. However, Veyance Technologies assumes no responsibility for the accuracy of this information under varied conditions found in field use.

## CHEMICAL HOSE

Do not use chemical hose at temperatures or pressures above those recommended by the manufacturer. All operators must be thoroughly trained in the care and use of this hose and must, at all times, wear protective clothing. A hose or system failure could cause the release of poisonous, corrosive or flammable material. Detailed information concerning storage, care and maintenance may be found in the Hose Handbook published by the Rubber Manufacturer's Association, 1400 K Street, N.W., Washington, D.C. 20005 and in SAE Recommended Practices J1273.

# VEYANCE TECHNOLOGIES, INC. TERMS AND CONDITIONS OF SALE

**These Veyance Terms and Conditions of Sale apply to all sales by Veyance Technologies, Inc., its divisions, subsidiaries, affiliates and/or joint ventures of any product.**

(1) **Exclusive Terms and Conditions of Sale.** These Veyance Terms and Condition of Sale (the "Terms") apply to all sales by Veyance Technologies, Inc., its divisions, subsidiaries, affiliates and/or joint ventures (the "Seller") of any product(s) (the "Product(s)") to any buyer (the "Buyer") and are the exclusive terms and conditions of sales. Any offer by Seller to sell Products is expressly conditioned on Buyer's assent to and acceptance of these Terms. Any additional, different or other terms and/or conditions contained in any acceptance, confirmation or other documents by or from Buyer are hereby objected to and rejected by Seller. Buyer accepts the Terms by receipt of the Product. Any acceptance by Seller of any offer to purchase Products is expressly conditioned on Buyer's assent to and acceptance of these Terms, including all terms that are different from or in addition to any terms and condition of the offer. Any additional, different or other terms and/or conditions contained in purchase order or other document by or from Buyer are hereby objected to and rejected by Seller. Buyer accepts the Terms by receipt of the Product. In the event of any claimed conflict between these Terms and other alleged terms and conditions contained in any other document, these Terms shall control and take precedence over any other alleged terms and conditions.

(2) **Integration.** These Terms, together with the quantity, price and delivery schedule for the Product(s), the distributor agreement, if any, and other writing annexed hereto and signed by authorized representatives of Buyer and Seller, - (collectively, the "Agreement"), set forth the complete, and final agreement and understanding between Seller and Buyer in respect of the subject matter hereof, ad supersede all prior oral or agreements, understandings, representations, statements, and assurances. Buyer represents and acknowledges that Buyer is not relying upon any oral or written statement, warranty or representation of seller, its employees, agents and/or representatives not fully sent forth in the Agreement.

(3) **No Modification.** These Terms and the other components of the Agreement shall not be amended, or modified, nor shall any party be released from any provision thereof, unless such change occurs in a single writing signed by an officer of Seller and an authorized representative of Buyer.

(4) **Limited Warranty on Seller's Product(s).** Seller warrants good and free titles in the Product(s) and that the Product(s) will conform to Seller's published specifications, if any exist, or to such other specifications the parties have agreed upon in a single writing signed by both and officer of Seller and an authorized representative of Buyer. Product(s) will conform to such specifications according to establish test performed under controlled laboratory conditions and specific test requirements. These tests are not intended to reflect the performance of the Product(s) under any actual use conditions. Performance of the Product(s) under actual use conditions or as a component in a finished product, may not necessarily meet the test requirements. Due to the number and variety of application for which the Product(s) sold hereunder may be purchased and because Seller has no control over (or knowledge of) the conditions under which the Product(s) may be used by others, Seller makes no recommendation, warranty or representation as to the suitability of the Product(s) for the Buyer's application, use, end-product, process or combination with any other product or substance, or as to any results Buyer might obtain in Buyer's use(s) for the Product(s). Except only for the above, those rights and remedies that the Buyer has in respect of the Product(s) under the Competition and Consumer Act 2010(Cth) and similar state and territory laws applicable to Consumers in Australia and which cannot be lawfully excluded, restricted or modified (Non-excludable Rights): **a.** Notwithstanding any other provision of these Terms of the Agreement, the liability of the Seller to the Buyer. Whether arising under or in connection with the contract or the performance or non-performance thereof or anything incidental thereto, and whether by way of indemnity, by statute (to the extent that it is possible to exclude such liability), in tort (for negligence or otherwise), or on any other basis in law or equity is hereby excluded: and **b.** The Seller is not liable to the Buyer for any loss which the Buyer suffers, incurs or is liable for in connection with the supply of the Product(s) under a contract, except in accordance with clause 8. **SUBJECT TO THE ABOVE, THE SELLER MAKES NO OTHER EXPRESS OR IMPLIES WARRANTIES OR GUARANTEES.** Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failures does not amount to a major failure.

(5) **No Warranty on Product(s) Not Manufactured by Seller.** Seller distributes Product(s) manufactured by other companies. All Product(s) not manufactured by Seller are sold without any warranty of any kind by Seller. All Product(s) not manufactured by seller are sold **WITHOUT WARRANTY BY SELLER. "AS-IS", AND SELLER MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WITH RESPECT TO SUCH PRODUCT(S), EXPRESS OR IMPLIED, RESPECTING MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.**

(6) **Obligation of Reseller.** If Buyer distributes or resells the Product(s), Buyer represents and agrees that Buyer will cause its customer to receive and accept the Warranty and Remedy limitations set forth in paragraphs (4) to (8) herein. Buyer agrees to hold harmless and indemnify Seller from and against any losses, damages and expenses from or relating to Buyer's failure to satisfy its obligations under the paragraph.

(7) **No Reliance.** Buyer represents and acknowledges that Buyer used its own knowledge, skill, judgment, expertise and experience in (i) the selection of the Product(s) and/or (ii) in the selection, provision, or designation of any specifications for the Product(s) agreed upon by Buyer and Seller; and Buyer represents and acknowledges that Buyer does not rely on any oral or written statements, representation or samples made or presented by Seller, its employees, agents and/or representatives to Buyer. Buyer represents and acknowledges that Buyer does not rely on any knowledge, skill, judgment, expertise or experience of the Seller, its employees, agents and/or representatives in Buyer's selection of the Product(s) or in Buyer's selection, provision or designation of any specification or set of specifications. Without limited the foregoing, Buyer agrees that Seller shall not be liable for, and – assumes all risk of, inaccurate or unsuitable specification or information provided, selected or designated by Buyer.

(8) **Limitation of Liability of Seller and Buyer's Exclusive Remedy.** If Buyer claims that any Product(s) are non-conforming or defective in any way, Buyer shall give notice in writing to Seller of such claim within ninety (90) days of Buyer becoming aware of such claim. Upon Seller's approval, Buyer shall – return the Product(s) to a location designated by Seller, at Buyer's – expense. As Buyer's exclusive remedy for breach of warranty, breach – under the Agreement and/or any other alleged claim relating to the Product(s), and to extent permitted by law, Seller's liability in respect of any Non-excludable Rights shall be limited at its option either to in respect of Product(s), the repair or replacement of the Products or the cost of repairing or replacing the Product(s). In the event that a warranty provision in the other components of the Agreement provides that, -for a specific Product, no adjustment shall be made after a specified period of time; Seller shall not be responsible under the terms of such warranty unless the claim is made within required period of time. Seller's total responsibility and liability for any and all claims, losses and damages of any kind whatsoever arising out of any cause whatsoever (whether under any warranty or based in contract, negligence, other tort, strict liability, breach of warranty, other theory under law or equity or otherwise) shall not exceed the original purchase price of the nonconforming Product(s). **IN NO EVENT SHALL SELLER BE LIABLE TO THE BUYER FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, OR PUNITIVE DAMAGES (INCLUDING BY THE NEGLIGENCE OF SELLER OR OTHERWISE) - RESULTING FROM ANY CASE.** Seller shall not be liable for, and- Buyer assumes all liability for, all personal injury and property damage connected with the handling, transportation, or further manufacture, fabrication, assembly, or processing of the Product(s).

(9) **No License.** No statement contained herein shall be construed as a license to any intellectual property, a license to operate or use the Product(s) in any specific application, or as a recommendation or inducement to infringe patents or as an endorsement or recommendation for use with other manufacturers' products or systems.

(10) **Price Adjustment.** Prices are subject to change without notice and all such items will be billed at prices in effect at the time of shipment. Buyer will be notified of any price increase and may cancel any undelivered portion of the order by written notice to Seller provided such written notice is received by Seller not more than 10 days after your receipt of notification of the increase. Upon such cancellation, Buyer shall have no liability to Seller for the canceled portion of the order except as to product manufactured or in process, components procured by Seller from outside sources, and special tooling, equipment or single use raw materials procured for performance of this order.



- (11) **Ordering and Limits.** Seller may discontinue any Product(s) sold hereunder at any time, unless Buyer and Seller have otherwise agreed in writing signed by authorized representatives of both parties.
- (12) **Payment and Credit.** Buyer will make all payments hereunder in cash, or in negotiable paper collectible at face value in the fund and at the location indicated on Seller's invoice; late payments will bear interest at 1.5%/month. If Seller determines that Buyer's financial responsibility has become impaired or otherwise unsatisfactory to Seller, Seller may require proof of financial condition, advance cash payments, COD, shorter terms, and/or the posting of satisfactory security by the Buyer, and may withhold shipments until Buyer complies.
- (13) **Taxes and Governmental Limits on Price.** All prices are subject to increase from time to time to compensate for any tax, excise or levy imposed upon the products sold, or upon the manufacture, sale, transportation, or delivery of them or whenever any tax, excise, levy, law or governmental regulation has the effect, directly or indirectly, of increasing the cost of manufacture, sale or delivery. Buyer will reimburse Seller for all federal, state, local or other taxes, excises or charges associated with the manufacture, sale or delivery of the Product(s). If any government action or law should have the effect of establishing a maximum price on the Product(s) to be delivered, Seller may, at its option and without liability to Buyer, terminate its obligation with respect to future shipments upon (30) day written notice.
- (14) **Delays in Delivery.** Seller shall not be liable or deemed in default for failure to deliver or delay in delivery due to a force majeure or any other cause beyond Seller's reasonable control. If unable to meet delivery schedules, seller will endeavor to allocate material fairly among itself and/or its buyers, but reserves to itself final determination of the deliveries to be made without liability. Buyer will accept, as full and complete performance by Seller, deliveries in accordance with such determinations as Seller may make. Except in the case of a force majeure, if not satisfied with Seller's determination, Buyer as its sole remedy have a right to terminate this contract without further obligation upon: (i) 10 days written notice; and (ii) payment for all Products received to date.
- (15) **Indemnification.** Seller will indemnify Buyer against all claims and demands for infringement of any United States patent by the Product(s) manufactured by Seller, provided the Buyer notifies Seller of any patent infringement and upon request tenders Seller the defense of the claim. Buyers who furnish specifications to Seller agree to hold Seller harmless and indemnify Seller against any claims which arise out of such specification.
- (16) **Safety Information.** Buyer(s) acknowledge that seller has furnished to Buyer product information which includes warning and safety and health information concerning the Product(s). Buyer represents and agrees that it will disseminate such information so as to give warning of possible hazards to person whom Buyer can reasonably foresee may exposure to such hazards, including, but not limited to, Buyer's employees, agents, contractors and customers.
- (17) **Risk of Loss.** Unless otherwise set forth in the Agreement, all Products sold by Seller shall be delivered FCA (Seller's location). Title to the goods shall pass to Buyer upon passage of the risk of loss; provided, however, that to the extent permitted by law, until each of the goods delivered hereunder has been paid for in full, Seller shall retain title to the goods; however, all risk of loss and responsibility for transportation and storage, taxes and duties shall transfer in accordance with the Agreement. Buyer hereby agrees that notwithstanding any estimated shipment, production or requested date(s) for the Product(s), Seller is not obligated to produce, deliver or ship the Product(s) by the estimated shipment, production or requested date(s). Buyer hereby agrees that unless Buyer notifies Seller in writing within ninety (90) calendar days of shipment, there shall be a presumption that Product(s) conforming to the goods ordered were received by Buyer.
- (18) **Covenants.** While the Product(s) remains the property of Seller, the Buyer agrees with Seller that: **a.** The Buyer holds the Product(s) as fiduciary bailee of Seller; **b.** The Product(s) will be stored separately so that they are readily identifiable as the property of Seller; **c.** The Buyer will not dispose of the Product(s) except with Seller's prior written consent or in the ordinary course of the Buyer's business; **d.** The Buyer will hold all money received, relating to the sale of Seller Product(s) in a separate bank account which is not subject to any Security Interest and will pay such monies immediately on request to Seller; **e.** The Buyer will not allow or cause the Product(s) to become an accession to any property or to lose their separate identifiable character or be co-mingled with other goods, in any way, either by any process of its own or be a third party, except with the Supplier's prior written consent; **f.** The Buyer has no right or claim to any interest in the Product(s) to secure any liquidated or un-liquidated debt or obligation Seller owes to the Buyer; **g.** The Buyer cannot claim any lien over the Product(s); **h.** The Buyer will not create any absolute or defensible interest in the Product(s) in relation to any third party, except with Seller's prior written consent; **i.** Pending payment in full for all amounts owed by the Buyer to Seller on all accounts, the Buyer **i.** Subject to clause 19, must not allow any person to have acquire any Security Interest in the Product(s); **ii.** Must insure the Product(s) for their full insurable or replacement value (whichever is higher) with an insurer licensed or authorized to conduct the business of insurance in the place where the Buyer carries on business; **iii.** Must not remove, deface or obliterate any identifying mark or number on any of the Product(s); **iv.** Must not move the Product(s) from the Buyer's premises.
- (19) **Seller's Rights.** If the Buyer fails to pay for any Product(s) within the period of credit extended by Seller to the Buyer: **a.** Seller may recover possession of all Product(s) (in which property has remained with Seller) at any site owned, possessed or controlled by the Buyer and the Buyer agrees that Seller has an irrevocable license to do so without incurring any liability to the Buyer or any person claiming through the Buyer; and **b.** If required, the Buyer will assign to Seller any right of the Buyer to any outstanding money relating to the re-supply of the product(s). The Buyer irrevocably appoints Seller or its nominee as its attorney to sign all documents and do so within 7 days of receiving written notice to do so, and ratifies any acts the attorney lawfully does or cause to be done with respect to any assignment of debt.
- (20) **PPSA Further Assurances.** If Seller determines that a PPS Law applies, or will in the future apply, to any agreement that incorporates these Terms (Supply Agreement) or the supply of any Product(s), then the Buyer must promptly upon request from Seller: **a.** Do anything (including obtaining consents, making amendment to the Supply Agreement or executing a new Supply Agreement) for the purposes of: **i.** Ensuring that any Security Interest created under, or provided for by the Supply Agreement **1.** attaches to the collateral that is intended to be covered by that Security Interest; **2.** is enforceable, perfected, maintained and otherwise effective; and **3.** any Security Interest created under, or provided for by the Supply Agreement has the priority contemplated by that Supply Agreement; or **ii.** Enabling Seller, on and from the Registration Commencement Time to prepare and register a financing statement or financing change statement; or **iii.** Enabling Seller to exercise any of its powers in connection with any Security Interest created under, or provided by the Supply Agreement; and **iv.** Provide any information requested by Seller in connection with the Supply Agreement to enable it to exercise any of its power or perform its obligation under the PPS law. **b.** Except if section 275(7) of the PPSA applies, each of Seller and the Buyer agree not to disclose any information of the kind referred to in section 275(1) of the PPSA that is not publicly available. **c.** Where the Product(s) supplied under the Supplied Agreement are not primarily for personal, domestic or household purposes, the Buyer agrees that on and from the Registration Commencement Time: **i.** Seller is under no obligation to dispose of or retain any Product(s) Seller seize within a reasonable time under section 125 of the PPSA; **ii.** Following a default the Buyer has no right to redeem the Product(s) under section 143 of the PPSA; and **iii.** Despite the Buyer paying for particular Product(s) itemized in an invoice or order or otherwise in respect of moneys owing under or in connection with the Supply Agreement, any payments received by Seller by the Buyer shall be applied in the following order: **1.** First, to satisfy any obligations owed by the Buyer to Seller which are unsecured in the order in which the obligations were incurred; **2.** Second, to satisfy any obligations that are secured but which are not secured by a Purchase Money Security Interest in the order in which the obligation were incurred; and **3.** Third, to satisfy any obligations that are secured by a Purchase Money Security Interest in order in which the obligations were incurred. **d.** Where the Product(s) supplied under the Supply Agreement are not used predominantly for personal or domestic purposes on and from the Registration Commencement Time the Buyer waives its right to receive: **i.** A notice of Seller's proposal to remove PPSA personal property which has become an accession under section 95 of the PPSA; **ii.** A notice of Seller's proposal to exercise its rights in accordance with land law under section 118(1)(b) of the PPSA; **iii.** A notice of Seller's proposal to dispose of any PPSA personal property under section 130 of the PPSA; **iv.** Details of the amounts paid to other secured parties in a statement of account provided by Seller under section 132(3)(d) of the PPSA; **v.** A statement of account under section 132(4) of the PPSA; and **vi.** A copy of, or notice of any Verification Statement confirming registration of a Financing Statement or a Financing Change Statement relating to any Security Interest under or provided for by the Supply Agreement. **e.** Anything that is required by Seller to be done under this clause 20 shall be done by the Buyer at its own expense. The Buyer agrees to reimburse the costs of Seller in connection with any action taken by Seller under or in connection with this clause 20.
- (21) **Applicable Law and Jurisdiction.** Buyer and Seller agree that the Terms and the Agreement shall be governed by and construed in accordance with the laws of Victoria, Australia. Buyer and Seller exclude the application of the United Nations Convention on Contracts for the International Sale of Goods. Buyer and Seller hereby submit the non-exclusive jurisdiction of the courts of Victoria, Australia in respect of all matters or things arising out of these Terms and any appeals there from.
- (22) **Severability.** In the event of illegality or invalidity of a provision of the Terms or the Agreement, the parties shall deem that provision stricken in its entirety; the balance of the Terms or the Agreement shall remain in full force and effect.

(23) Acceptance. Acceptance by the Buyer of these Terms and the Agreement as amended by Seller from time to time may be by any one of the following ways: **a.** By signing returning to seller a copy of these Terms; **b.** By performing an act that is done with the intention of adopting or accepting these Terms and the Agreement and receiving these Terms and the Agreements, including but not limited to continuing to order Product(s); or **c.** By Oral acceptance. Failure to accept these Terms within seven (7) days of receipt by the Buyer of these Terms may result in the immediate withdrawal of Sellers offer to supply Product(s)

(24) Definitions. In these Terms the following words will (unless the context otherwise requires) have the following meanings:

- “Australian Consumer Law” means Schedule 2 of the Australian Competition and Consumer Act 2010 (Cth)
- “Attaches” has the same meaning as given to the term in the PPSA:
- “Collateral” has the same meaning as given to that term in the PPSA:
- “Conditions” means the standard terms and conditions of sale set out herein:
- “Consumer” has the meaning given to it in section 4B and Schedule 2, section 3 of the Australian Consumer Law:
- “Financing Change Statement” has the same meaning as given to the term in the PPSA:
- “Financing Statement” has the same meaning as given to the term in the PPSA:
- “Perfected” has the same meaning as given to the term in the PPSA:
- “PPSA” means the Personal Property Securities Act 2009 (cth)
- “PPS Law” means: (a) the PPSA; (b) any regulation made pursuant to the PPSA; and (c) any other legislation made to implement or contemplated by any PPSA law referred to in (a) or (b):
- “Purchase Money Security Interest” has the same meaning as given to the term in the PPSA:
- “Registration Commencement Time” has the same meaning as given to the term in the PPSA:
- “Security Interest” means: (a) any security for payment of money or performance of obligations including a mortgage, charge, lien, pledge, trust or power, or title retention arrangement; (b) a security interest as defined in the PPSA; or (c) any document that grants or creates anything referred to in either paragraph (a) or (b) of this definition and any other thing which gives creditor priority over any other any other creditor with respect to any asset or an interest in any asset:
- “Verification Statement” has the same meaning as given to the term in the PPSA: I/ We acknowledge and agree to these Terms, and acknowledge that these Terms may be amended by Seller from time to time. I/We are duly authorized to agree to these Terms on behalf of the Buyer.



# INDUSTRIAL HOSE

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DISCHARGE

## 5.0 CLEANING EQUIPMENT

- 5.01 FORTRESS® 300
- 5.02 FORTRESS® 3000
- 5.03 BLUE NEPTUNE™ 3000

## 6.0 FOOD TRANSFER

- 6.01 WHITE PLICORD®  
EXTREMEFLEX™ (FOOD GRADE)
- 6.02 RED PLICORD®  
EXTREMEFLEX™ (FOOD GRADE)
- 6.03 VINTER™
- 6.04 FOOD HOSE  
RECOMMENDATION GUIDE

## 7.0 FOOD WASH DOWN

- 7.01 FORTRESS® 300
- 7.02 FORTRESS® 3000
- 7.03 BLUE FORTRESS® 300
- 7.04 SPECTRA® 300

## 8.0 MARINE

- 8.01 PLICORD®  
(SAE J1527 TYPE A2 FUEL FILL)
- 8.02 MARINE FUEL LINE  
(USCG/SAE J1527 & ISO 7840 TYPE A1)

## 9.0 MATERIAL HANDLING ABRASIVES

- 9.01 PLICORD® BLAST 2 PLY
- 9.02 ARTRAC®
- 9.03 ARVAC™ SW
- 9.04 SPIRAFLEX® AIR SEEDER HOSE
- 9.05 V801 MUFF COUPLING HOSE
- 9.06 ALUMINIUM MUFF COUPLINGS



## 10.0 MATERIAL HANDLING BULK TRANSFER

- 10.01 BLACK SOFTWALL
- 10.02 PLICORD® TORRIDAR™  
(HOT AIR BLOWER)
- 10.03 SPIRAFLEX® MULCH BLOWER

## 11.0 MATERIAL HANDLING CEMENT & CONCRETE

- 11.01 ALLCRETE® TEXTILE  
(PLASTER, GROUT & CONCRETE)
- 11.02 ALLCRETE® WIRE
- 11.03 G820 SUPER CONCRETE  
DELIVERY HOSE

## 12.0 MINING

- 12.01 MINE SPRAY
- 12.02 PLICORD® BLAST LOADING HOSE
- 12.03 HD AIR/WATER MINING
- 12.04 V117 FRAS AIR/WATER
- 12.05 PLICORD® SLURRY BLAST/DEWATERING
- 12.06 V801 MUFF COUPLING HOSE
- 12.07 ALUMINIUM MUFF COUPLINGS

## 13.0 PETROLEUM AIR CRAFT FUELING

- 13.01 JET RANGER™
- 13.02 JET RANGER™ HOSE FITTINGS

## 14.0 PETROLEUM DISPENSING

- 14.01 DEF DISPENSING HOSE
- 14.02 FLEXSTEEL PETROL (AS2683)
- 14.03 TEXTILE PETROL (AS2683)

## 15.0 PETROLEUM DOCK

- 15.01 FLEXDOCK® 225
- 15.02 FLEXDOCK® 300
- 15.03 VAPOR RECOVERY DOCK
- 15.04 HOT TAR & ASPHALT (BS EN 13482)
- 15.05 NITRILE OIL SERVICE DOCK HOSE  
(EN1765-S15)

## 16.0 PETROLEUM TRANSFER

- 16.01 PLICORD® FUEL DISCHARGE
- 16.02 PLICORD® EXTREMEFLEX™  
(PETROLEUM TRANSFER)
- 16.03 PYROFLEX® (HOT TAR & ASPHALT II)
- 16.04 PYROFLEX® (HOT TAR WAND)
- 16.05 V401 PETROL & OIL DELIVERY HOSE
- 16.06 V404 OIL SUCTION & DISCHARGE HOSE

## 17.0 SPRAY

- 17.01 MINE SPRAY
- 17.02 NR SPRAY
- 17.03 PLIOVIC® AG SPRAY

## 18.0 STEAM

- 18.01 FLEXSTEEL® (250 STEAM)
- 18.02 CRIMPED STEAM ASSEMBLY
- 18.03 PLICORD® (250 STEAM)

## 19.0 VACUUM

- 19.01 SPIRAFLEX® VACUUM
- 19.02 ARTRAC®

**20.0 VEYANCE BRANDED PRODUCT**

20.01 LPG DELIVERY PRO™

**21.0 WATER DISCHARGE**

21.01 EPFLOW® BLUE (LAYFLAT)  
21.02 EPFLOW® RED (LAYFLAT)  
21.03 FIRE ENGINE BOOSTER  
21.04 PLICORD® FURNACE DOOR  
21.05 PLICORD® HD WATER DISCHARGE  
21.06 V204 WATER DISCHARGE HOSE

**22.0 WATER SUCTION & DISCHARGE**

22.01 V214 WATER SUCTION  
& DISCHARGE HOSE  
22.02 PLICORD® WATER SUCTION  
& DISCHARGE

**23.0 WATER WASHDOWN**

23.01 FORTRESS® 300  
23.02 FORTRESS® 3000  
23.03 BLUE FORTRESS® 300  
23.04 SPECTRA® 300

**24.0 WELDING**

24.01 SINGLE LINE WELDING AS1335  
24.02 TWINLINE WELDING AS1335  
COUPLED ASSEMBLIES

**25.0 PVC HOSE**

25.01 EPFLEX (GREY WATER SUCTION HOSE)  
25.02 EPFLEX (BLUE OIL SUCTION HOSE)  
25.03 EPFLOW (SAFETY YELLOW AIR/WATER HOSE)  
25.04 EPFLOW (WHITE WASHDOWN HOSE)  
25.05 EPFLOW (CLEAR MULTIPURPOSE HOSE)  
25.06 EPFLOW (CLEAR VINYL TUBING)  
25.07 EPFLOW® BLUE (LAYFLAT)  
25.08 EPFLOW® RED (LAYFLAT)  
25.09 BLUE PLIOVIC® G.S.  
25.10 EPFLEX® CLEAR STEEL SUCTION HOSE

**26.0 AUTOMOTIVE HOSE**

26.01 HI-MILER® STRAIGHT RADIATOR HOSE  
26.02 FLEXIBLE RADIATOR HOSE  
26.03 STANDARD STRAIGHT RADIATOR HOSE  
26.04 FUEL LINE/EMISSION CONTROL HOSE  
26.05 FUEL INJECTION HOSE  
26.06 HI-MILER® BLUE HEATER HOSE  
26.07 STANDARD BLACK HEATER HOSE  
26.08 AIR BRAKE HOSE  
26.09 GALAXY® (INTERNAL NYLON BARRIER  
AIR CONDITIONING HOSE)  
26.10 TRANSMISSION OIL COOLER HOSE  
26.11 POWER STEERING RETURN HOSE  
26.12 POWER BRAKE VACUUM HOSE (HEAVY WALL)  
26.13 POWER BRAKE VACUUM HOSE (LIGHT WALL)  
26.14 WINDSCREEN WIPER/RADIATOR  
OVERFLOW TUBING



## **27.0 COUPLING SYSTEMS**

- 27.01 INSTA-LOCK™ TYPE A  
(MALE ADAPTER X FEMALE BSP THREAD)
- 27.02 INSTA-LOCK™ TYPE B  
(FEMALE COUPLER X MALE BSP THREAD)
- 27.03 INSTA-LOCK™ TYPE C  
(FEMALE COUPLER X HOSE SHANK)
- 27.04 INSTA-LOCK™ TYPE D  
(FEMALE COUPLER X FEMALE THREAD)
- 27.05 INSTA-LOCK™ TYPE E  
(MALE ADAPTER X HOSE SHANK)
- 27.06 INSTA-LOCK™ TYPE F  
(MALE ADAPTER X MALE BSP THREAD)
- 27.07 INSTA-LOCK™  
(INTERLOCKING STAINLESS STEEL MALE NPT  
& BSP HOSE STEMS)
- 27.08 INSTA-LOCK™ DUST CAP
- 27.09 INSTA-LOCK™ DUST PLUG
- 27.10 INSTA-LOCK™ REPAIR KITS
- 27.11 INSTA-LOCK™ GASKETS
- 27.12 INSTA-LOCK™ INTERLOCKING  
FERRULES
- 27.13 STAINLESS STEEL  
& ALUMINUM GRIMP SLEEVES  
(FOR INFINITY™/PALADIN® HOSES)

## **28.0 APPENDIX A (ADDITIONAL NON-STOCK PRODUCTS)**

## **29.0 APPENDIX B (CHEMICAL CHARTS)**

## **30.0 APPENDIX C (GENERAL INFORMATION)**

## **31.0 APPENDIX D (GENERAL INFORMATION)**

## **32.0 APPENDIX E (GENERAL INFORMATION)**





**1.00**

**AIR & MULTIPURPOSE  
GENERAL PURPOSE**



## GORILLA®



GORILLA BY **GOODYEAR**



### Product Specifications

**APPLICATION:** A premium-quality, multipurpose industrial hose with a wide range of applications in factories, construction, agriculture, quarries, mines, railroads, the oil and gas industry, and shipbuilding. All sizes are rated at 500 psi (3.4 Mpa) maximum working pressure. Non-conductive, minimum electrical resistance greater than one (1) megaohm per inch of hose length at 1000 Volts DC.

**CONSTRUCTION TUBE:** Nitrile synthetic rubber, RMA Class A (High Oil Resistance)

**COVER:** Yellow Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) MSHA approved

**REINFORCEMENT:** Spiral Flexten® yarn, 2" is braided synthetic yarn

**TEMPERATURE:** -29°C to 88°C

**BRANDING:** Example: Gorilla® 1" (25.4 mm) 500 psi. Made in USA. Goodyear® Flame Resistant USMSHA No. 2G-14C/14

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 569-035

## GORILLA®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20026239	1/4	6	0.47	11.9	500	3.45	0.08	0.12	152.4
20026256	3/8	10	0.73	18.6	500	3.45	0.22	0.33	152.4
20026273	1/2	12	0.89	22.6	500	3.45	0.28	0.42	152.4
20026289	5/8	16	1.06	26.9	500	3.45	0.35	0.52	152.4
20026290	3/4	19	1.19	30.2	500	3.45	0.41	0.61	152.4
20026304	1	25	1.50	37.8	500	3.45	0.58	0.86	137.2
20132959	1¼	32	1.77	45.6	500	3.45	0.79	1.18	30.5
20026309	1½	38	2.04	51.8	500	3.45	0.86	1.27	91
20023183	2	50	2.62	66.6	500	3.45	1.22	1.82	30.5

ORTAC®



### Product Specifications

**APPLICATION:** Ortac® (Oil Resistant Tube and Cover) is our most popular premium-quality multipurpose hose. Used in the most abusive industrial applications, Ortac will handle air, oil, water, kerosene and some chemicals. Non-conductive, minimum electrical resistance greater than one (1) megohm per inch of hose length; at 1000 Volts DC. Available in 250, 300 and 400 PSI working pressures.  
NOTE: Ortac® 400 Yellow is USMSHA approved.

**CONSTRUCTION TUBE:** Nitrile synthetic rubber, RMA Class A (high oil resistance)

**COVER:** Red or Yellow Carbryn™ synthetic rubber, RMA Class A (high oil resistance)

**REINFORCEMENT:** Spiral synthetic yarn, 2" is braided

**TEMPERATURE:** -29°C to 88°C

**BRANDING:** Example: 11/2" (38.1 mm) Ortac® 300 psi WP. Made in USA. Goodyear®

**COUPLINGS:** Contact fitting manufacturer for proper fitting recommendation and coupling procedure

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 536-465 (2", 200psi)  
569-058 (250psi)  
569-059 (300psi)

ORTAC®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20026560	3/16	5	0.44	11.8	300	2.07	0.07	0.10	152.4
20026527	1/4	6	0.53	13.5	250	1.72	0.09	0.13	152.4
20026529	5/16	8	0.62	17.5	250	1.72	0.14	0.21	152.4
20026531	3/8	10	0.69	17.5	250	1.72	0.15	0.22	152.4
20026534	1/2	12	0.84	21.3	250	1.72	0.20	0.30	152.4
20026570	5/8	16	1.06	26.9	300	2.07	0.35	0.52	152.4
20026540	3/4	19	1.14	29.0	250	1.72	0.34	0.51	152.4
20026575	1	25	1.50	38.1	300	2.07	0.59	0.88	137.2
20026579	1¼	32	1.77	45.2	250	1.72	0.70	1.04	122.0
20023267	1½	38	2.08	52.8	250	1.72	0.96	1.43	91.4
20024996	2	50	2.50	63.5	200	1.38	1.21	1.80	30.5

## RED WINGFOOT®



### Product Specifications

**APPLICATION:** A good-quality, economical general purpose hose for industrial air service, compressor lines, pneumatic tools, low-pressure spray and many other applications where the need for oil resistance is moderate. Non-conductive, minimum electrical resistance greater than one (1) megohm per inch of length of hose at 1000 V DC.

**CONSTRUCTION TUBE:** Nitrile synthetic rubber, RMA Class A (high oil resistance)

**COVER:** Red Chemivic™ synthetic rubber, RMA Class A (high oil resistance)

**REINFORCEMENT:** Spiral synthetic yarn (3/16" - 1/2"), braided synthetic yarn (2")

**TEMPERATURE:** -29°C to 88°C

**BRANDING:** Example: Wingfoot® Nonconductive 1/2" (12.7 mm) 200 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 569-007 (200psi)  
569-025 (1¼", 1½", 250psi)  
569-008 (300psi)

### RED WINGFOOT®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20025484	1/4	6	0.53	13.5	200	1.38	0.10	0.15	152.4
20025485	5/16	8	0.63	16.0	200	1.38	0.14	0.21	152.4
20025487	3/8	10	0.69	17.5	200	1.38	0.15	0.22	152.4
20025490	1/2	12	0.84	21.3	200	1.38	0.21	0.31	152.4
20025518	5/8	16	1.00	25.4	200	1.38	0.27	0.40	152.4
20025493	3/4	19	1.13	28.7	200	1.38	0.38	0.57	152.4
20025532	1	25	1.50	38.1	300	2.07	0.62	0.92	137.2
20026197	1¼	32	1.80	45.6	250	1.70	0.74	1.11	122.0
20022906	1½	38	2.09	53.2	250	1.70	0.97	1.44	91.4

## BLUE WINGFOOT®



## Product Specifications

**APPLICATION:** A good-quality, economical general purpose hose for industrial air service, compressor lines, pneumatic tools, low-pressure spray and many other applications where the need for oil resistance is moderate. Non-conductive, minimum electrical resistance greater than one (1) megohm per inch of length of hose at 1000 V DC.

**CONSTRUCTION TUBE:** Nitrile synthetic rubber, RMA Class A (high oil resistance)

**COVER:** Blue Chemivic™ synthetic rubber, RMA Class A (high oil resistance)

**REINFORCEMENT:** Spiral synthetic yarn (3/16" - 1½"), braided synthetic yarn (2")

**TEMPERATURE:** -29°C to 88°C

**BRANDING:** Example: Wingfoot® Nonconductive 1/2" (12.7 mm) 200 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 569-037

## BLUE WINGFOOT®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20026318	3/8	10	0.69	17.5	300	2.07	0.19	0.28	152.4
20026319	1/2	12	0.86	21.8	300	2.07	0.26	0.39	152.4
20026322	5/8	16	1.02	25.9	300	2.07	0.33	0.49	152.4
20026323	3/4	19	1.19	30.2	300	2.07	0.42	0.63	152.4
20026334	1	25	1.50	38.1	300	2.07	0.62	0.92	137.2

## RED HORIZON®



### Product Specifications

- APPLICATION:** An economical air and water hose, Horizon® is for a wide range of industrial, construction and agricultural applications.
- CONSTRUCTION TUBE:** Versigard® synthetic rubber, RMA Class C (Limited Oil Resistance)
- COVER:** Red Versigard® synthetic rubber
- REINFORCEMENT:** Spiral synthetic yarn, 2" is braided
- TEMPERATURE:** -40°C to 88°C
- BRANDING:** Example: 1/2" Horizon® Goodyear® 300 psi WP
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 569-011

### RED HORIZON®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20025735	1/4	6	0.50	12.7	200	1.38	0.08	0.12	152.4
20025750	3/8	10	0.67	17.0	200	1.38	0.15	0.22	152.4
20025773	1/2	12	0.81	20.6	200	1.38	0.20	0.30	152.4
20025799	3/4	19	1.12	28.5	200	1.38	0.34	0.21	152.4
20025966	1	25	1.48	37.3	200	1.38	0.58	0.86	137.2

Versigard® is a registered trademark of The Goodyear® Tire & Rubber Company.

## YELLOW HORIZON®



## Product Specifications

- APPLICATION:** An economical air and water hose, Horizon® is for a wide range of industrial, construction and agricultural applications.
- CONSTRUCTION TUBE:** Versigard® synthetic rubber, RMA Class C (Limited Oil Resistance)
- COVER:** Yellow Versigard® synthetic rubber
- REINFORCEMENT:** Spiral synthetic yarn, 2" is braided
- TEMPERATURE:** -40°C to 88°C
- BRANDING:** Example: 1/2" Horizon® Goodyear® 300 psi WP
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 569-039

## YELLOW HORIZON®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20026374	3/8	10	0.70	17.8	250	1.72	0.17	0.25	152.4
20026375	1/2	12	0.84	21.3	250	1.72	0.22	0.33	152.4
20026379	3/4	19	1.14	29.0	250	1.72	0.35	0.52	152.4
20351788	3/4	19	1.14	29.0	250	1.72	0.35	0.52	20
20026395	1	25	1.45	36.8	250	1.72	0.54	0.80	137.2

Versigard® is a registered trademark of The Goodyear® Tire & Rubber Company.

## BLACK HORIZON®



### Product Specifications

- APPLICATION:** An economical air and water hose, Black Horizon® is for a wide range of industrial, construction and agricultural applications. Meets AS1221 fire reel hose.
- CONSTRUCTION TUBE:** Versigard® synthetic rubber, RMA Class C (Limited Oil Resistance)
- COVER:** Black Versigard® synthetic rubber
- REINFORCEMENT:** Spiral synthetic yarn, 2" is braided
- TEMPERATURE:** -40°C to 88°C
- BRANDING:** Example: 1/2" Horizon® Goodyear® 200 psi WP
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 569-009 (200psi)  
569-559 (300psi)

### BLACK HORIZON®

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20025553	1/4	6	0.50	12.7	200	1.38	0.08	0.12	152.4
20025565	5/16	8	0.58	14.7	200	1.38	0.09	0.13	152.4
20025572	3/8	10	0.67	17.0	200	1.38	0.15	0.22	152.4
20025591	1/2	12	0.81	20.6	200	1.38	0.20	0.30	152.4
20025610	5/8	16	0.97	24.6	200	1.38	0.27	0.40	152.4
20025619	3/4	19	1.12	28.5	200	1.38	0.34	0.21	152.4
20027011	1	25	1.48	37.3	300	2.07	0.58	0.86	137.2

Versigard® is a registered trademark of The Goodyear® Tire & Rubber Company.

## BLUE PLIOVIC® G.S.



### Product Specifications

- APPLICATION:** A lightweight, economical general purpose hose for carrying air, water and many spray solutions. Pliovic® is suitable for a wide range of industrial, construction, agricultural hand sprayers and many multipurpose applications. Non-conductive, minimum electrical resistance greater than one (1) megohm per inch of hose length at 1000 Volts DC. Available in Pliovic® GS construction or a thick cover, Pliovic® Plus construction. Non-marking cover.
- CONSTRUCTION TUBE:** Black Pliovic®, RMA Class B (Medium Oil Resistance)
- COVER:** Pliovic®, smooth finish, RMA Class B (Medium Oil Resistance) Blue
- REINFORCEMENT:** Spiral synthetic yarn
- TEMPERATURE:** -23°C to 70°C for GS and Pliovic® Plus 250
- BRANDING:** Example: Pliovic® GS 3/8" ID (9.5 mm) 250 psi WP. Made in USA. Goodyear®
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 540-350

### BLUE PLIOVIC® G.S.

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20715470	3/8	10	0.60	15.2	300	2.07	0.09	0.13	10
20342387	3/8	10	0.60	15.2	300	2.07	0.09	0.13	20
20715471	3/8	10	0.60	15.2	300	2.07	0.09	0.13	30
20342388	3/8	10	0.60	15.2	300	2.07	0.09	0.13	200
20342389	1/2	12	0.78	19.8	300	2.07	0.15	0.22	20
20715473	1/2	12	0.78	19.8	300	2.07	0.15	0.22	30
20342410	1/2	12	0.78	19.8	300	2.07	0.15	0.22	200



**2.00**

**AIR & MULTIPURPOSE  
HEAVY DUTY**



## PLICORD® STEEL AIR



### Product Specifications

- APPLICATION:** A heavy-duty, wrapped finish, single wire-braid or spiral ply wire air hose for higher pressure service in severe industrial applications including service in mines, quarries and construction jobs.
- CONSTRUCTION TUBE:** Black Nitrile synthetic rubber, RMA Class B
- COVER:** Yellow Chemivic™ synthetic rubber (wrapped impression), RMA Class B, MSHA approved
- REINFORCEMENT:** Braided (1) steel wire (1/2" - 1 1/2") Spiral-plied steel wire (2" - 4")
- TEMPERATURE:** -40°C to 93°C
- BRANDING:** Example: Goodyear® Steel Air 500 psi 3.4 MPA 2" 50.8 mm
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 549-001

### PLICORD® STEEL AIR

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20018772	3/4	19	1.14	29.0	750	5.17	0.45	0.67	30.5
20018776	1	25	1.45	36.6	750	5.17	0.66	1.00	30.5
20018782	1½	38	1.98	50.2	500	3.45	0.97	1.14	30.5
20018788	2	50	2.66	67.6	500	3.45	1.59	2.36	30.5
20018789	2	50	2.66	67.6	500	3.45	1.59	2.36	61
20018794	2½	63	3.33	84.6	500	3.45	2.63	3.91	30.5
20316204	3	75	3.81	96.8	500	3.45	3.07	4.57	30.5

Also available with Versigard® synthetic rubber tube and cover where superior heat resistance is more important than oil resistance.

## PLICORD® AIR BLUE 400



### Product Specifications

- APPLICATION:** A versatile, heavy-duty air hose for use in rough industrial applications or for severe service in mines, quarries and construction jobs.
- CONSTRUCTION TUBE:** Black Plioflex® synthetic rubber, RMA Class C (Limited Oil Resistance) (non-conductive)
- COVER:** Blue Plioflex® synthetic rubber (wrapped impression), RMA Class C (Limited Oil Resistance)
- REINFORCEMENT:** Spiral-plied synthetic fabric
- TEMPERATURE:** -32°C to 82°C
- BRANDING (SPIRAL):** Example: Goodyear® Plicord® Air Green 400 psi WP
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 549-093

### PLICORD® AIR BLUE 400

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20126202	1	25	1.500	38.1	400	2.76	0.58	0.86	61*
20149333	1¼	32	1.790	45.5	400	2.76	0.74	1.10	30.5
20126203	1¼	32	1.790	45.5	400	2.76	0.74	1.10	61
20318312	1½	38	2.040	51.8	400	2.76	0.86	1.28	122*
20054463	2	50	2.546	64.7	400	2.76	1.11	1.65	122*
20031961	3	75	3.700	94.0	400	2.76	2.14	3.18	30.5

\* Will cut down to 20mtr coils

## HD AIR/WATER MINING



### Product Specifications

- APPLICATION:** A versatile heavy duty air/water hose for use in mining, construction, quarries and various industrial applications.
- CONSTRUCTION TUBE:** Black synthetic rubber
- COVER:** Black synthetic rubber
- REINFORCEMENT:** 2 spiral plies of synthetic fabric
- TEMPERATURE:** -32°C to 88°C
- BRANDING:** Continuous blue spiral brand "Goodyear® HD Air/Water 300 psi WP"
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 549-890

### HD AIR/WATER MINING

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20149902	1/2	12	0.87	22.2	300	2.1	0.72	0.33	20
20149903	3/4	19	1.20	30.7	300	2.1	1.32	0.60	20
20149904	1	25	1.48	37.8	300	2.1	1.78	0.81	20
20149905	1¼	32	1.72	43.8	300	2.1	2.02	0.92	20
20149906	1½	38	2.00	50.8	300	2.1	2.62	1.19	20
20149907	2	50	2.57	65.4	300	2.1	3.04	1.38	20
20149908	2½	63	2.99	76.1	300	2.1	3.81	1.73	20
20149909	3	75	3.55	90.2	300	2.1	5.15	2.34	20

## V117 FRAS AIR/WATER



## Product Specifications

**APPLICATION:** Designed for air, water and stone dust applications in underground mines. Meets or exceeds the requirements of AS2660 Class A.

**CONSTRUCTION TUBE:** NR / SBR Blended, anti-static

**COVER:** NBR / EPDM Blended, Fire Resistant & Anti-static

**REINFORCEMENT:** Synthetic fabric plies

**TEMPERATURE:** -20°C to 70°C

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

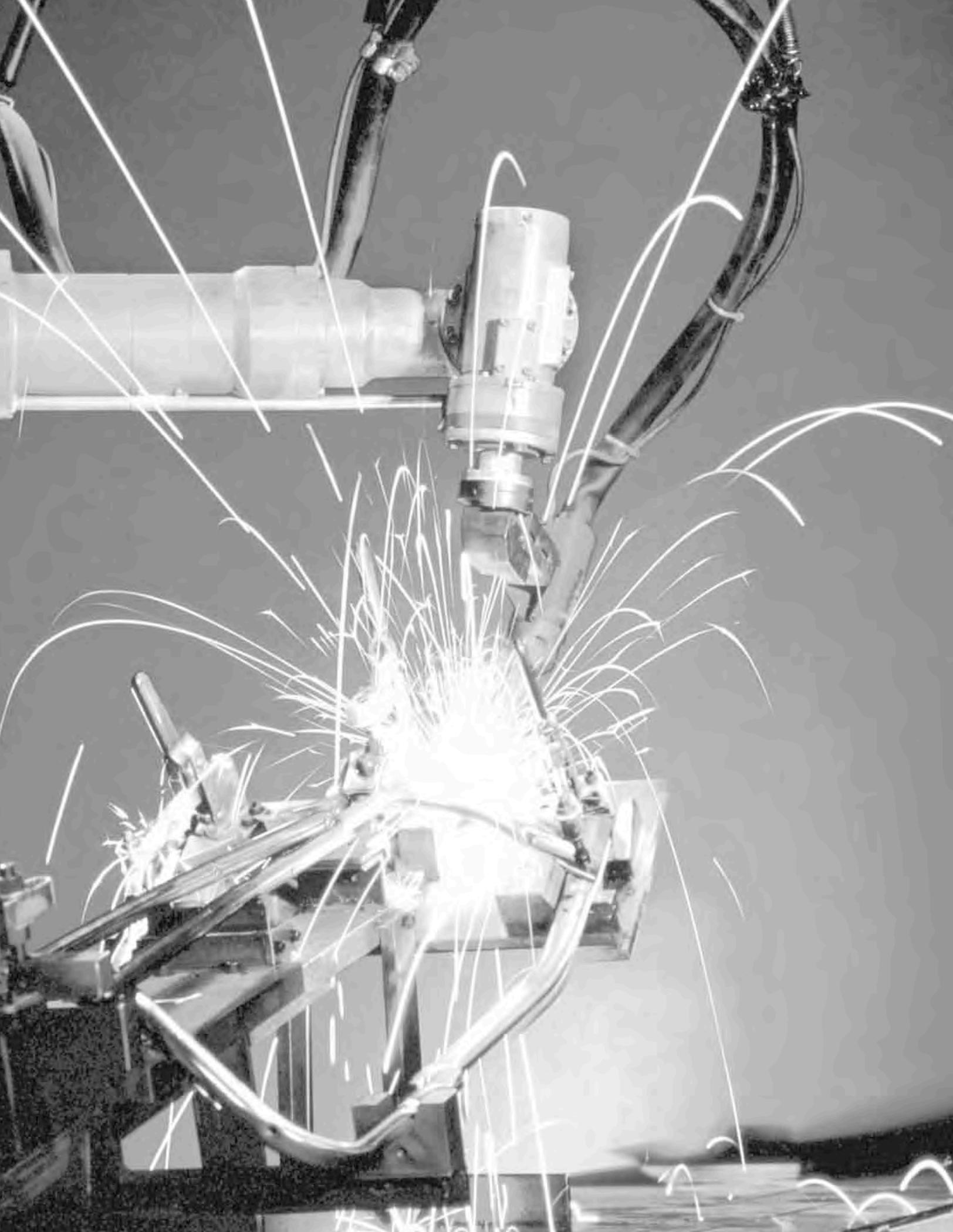
## V117 FRAS AIR/WATER

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20705068	1/2	12	0.90	23	255	1.75	0.27	0.40	20
20705069	3/4	19	1.14	29	255	1.75	0.36	0.54	20
20705210	1	25	1.53	39	255	1.75	0.58	0.86	20
20705211	1¼	32	1.81	46	255	1.75	0.78	1.16	20
20705212	1½	38	2.08	53	255	1.75	0.93	1.38	20
20705213	2	50	2.63	67	255	1.75	1.27	1.89	20
20705214	2½	63	3.14	80	255	1.75	1.58	2.36	20
20705215	3	75	3.66	93	255	1.75	2.01	3.00	20
20705216	4	100	4.80	122	255	1.75	2.97	4.43	20



**3.00**

**AIR & MULTIPURPOSE  
PUSH ON**



## INSTA-GRIP™ 300 BLACK



### Product Specifications

**APPLICATION:** For use with push-on fittings at working pressures of 300 psi. For low-pressure hydraulic and pneumatic systems such as shop air systems, general industrial, maintenance and automotive assembly applications. Non-conductive, minimum electrical resistance, greater than one (1) megohm per inch of hose length at 1000 Volts DC. MSHA approved covers.

**CONSTRUCTION TUBE:** Silicone is not used in the manufacturing of this hose. Chemivic™ oil- and heat-resistant synthetic rubber, RMA Class A (High Oil Resistance)

**COVER:** Black MSHA approved, weather-, abrasion- and oil-resistant synthetic rubber. RMA Class B. (Medium Oil Resistance)

**REINFORCEMENT:** Braided (1) high-strength synthetic yarn laid at the most effective angle for maximum strength and coupling holding ability

**TEMPERATURE:** -40°C to 88°C

**BRANDING:** Example: Insta-Grip™ 1/4" 300 psi WP Flame Resistant USMSHA 2G-IC-14C/33. Made in USA. Goodyear®

**COLOURS:** Green, Blue, Red, Yellow and Grey covers are available on request, contact customer service for pricing

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 535-278

### INSTA-GRIP™ 300

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	lb./ft.	kg./m.	m.
20022636	1/4	6	0.54	13.7	300	2.07	3	64	0.09	0.13	152.4
20022641	5/16	8	0.62	15.7	300	2.07	3	76	0.12	0.18	152.4
20022644	3/8	10	0.69	17.5	300	2.07	3	76	0.14	0.21	152.4
20022648	1/2	12	0.81	20.6	300	2.07	5	127	0.17	0.25	152.4
20022651	5/8	16	0.93	23.6	300	2.07	6	152	0.20	0.30	152.4
20022653	3/4	19	1.07	27.2	300	2.07	7	178	0.26	0.39	152.4

## ULTRA-GRIP™



## Product Specifications

<b>APPLICATION:</b>	For use with push-on fittings at maximum working pressures of 400 psi*. For low-pressure hydraulic pneumatic systems such as robotics, shop air systems, general industrial, maintenance and automotive assembly applications. Non-conductive, minimum electrical resistance greater than one (1) megohm per inch of hose length at 1000 Volts DC. MSHA approved covers.
<b>CONSTRUCTION TUBE:</b>	Chemivic™ oil and heat-resistant synthetic rubber, RMA Class A (High Oil Resistance)
<b>COVER:</b>	MSHA approved Black (USMSHA 2G-1C-14C/27). Weather-, abrasion- and oil-resistant Carbryn™ rubber, RMA Class A (High Oil Resistance)
<b>REINFORCEMENT:</b>	Braided (1) high-strength synthetic yarn laid at an angle for strength and coupling holding ability
<b>TEMPERATURE:</b>	-40°C to 93°C
<b>BRANDING:</b>	Example: Ultra-Grip™ Non-Conductive 3/8" 400 psi WP; Flame Resistant; USMSHA 2G-1C-14C/27. Made in USA. Goodyear®
<b>COLOURS:</b>	Green, Blue, Red, Yellow and Grey covers are available on request, contact customer service for pricing
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODE:</b>	535-283

## ULTRA-GRIP™

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	lb./ft.	kg./m.	m.
20022700	1/4	6	0.51	13.0	400	2.76	3	64	0.08	0.12	152.4
20022703	3/8	10	0.67	17.0	400	2.76	3	76	0.13	0.19	152.4
20022706	1/2	12	0.76	19.3	400	2.76	5	127	0.14	0.21	152.4
20022711	5/8	16	0.93	23.6	400	2.76	6	152	0.19	0.28	152.4
20022714	3/4	19	1.06	26.9	400	2.76	7	178	0.26	0.37	152.4
20141684	1	25	1.34	34.0	300	2.07	8	203	0.34	0.51	152.4

\* 1-inch rated at 300 psi.



**4.00**

**CHEMICAL  
TRANSFER**



## CHEM ONE™



### Product Specifications

- APPLICATION:** For the transfer of a variety of current industrial chemicals used today. (Refer to Goodyear® Engineered Products Chemical Resistance Guide for compatibility.) For use in pressure, gravity flow and/or suction service.
- CONSTRUCTION TUBE:** Alphasyn® Modified Cross-Linked Polyethylene (Mod XLPE)
- COVER:** Black corrugated abrasion-resistant Omegasyn™ EPDM with Red Spiral Stripe
- REINFORCEMENT:** Spiral plied synthetic fabric with double wire helix
- TEMPERATURE:** -40°C to 121°C
- BRANDING:** Example: CHEM ONE™ chemical transfer hose Alphasyn® 200 PSI WP. Goodyear®
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock Cam & Groove Fittings with this product. See the Couplings Systems information pages at the back of the catalogue
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 546-661

### CHEM ONE™

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20408836	3/4	19	1.2	30.5	200	1.38	2	50.8	29	737	0.39	0.58	30.5
20408837	1	25	1.4	36.8	200	1.38	3	76.2	29	737	0.49	0.73	30.5
20408838	1¼	32	1.6	42.2	200	1.38	3	76.2	29	737	0.53	0.78	30.5
20408870	1½	38	1.9	48.3	200	1.38	4	101.6	29	737	0.63	0.93	30.5
20408871	2	50	2.4	61.8	200	1.38	5	127.0	29	737	0.86	1.28	30.5
20408872	2½	63	2.9	75.6	200	1.38	6	152.4	29	737	1.24	1.84	30.5
20408873	3	75	3.4	88.1	200	1.38	8	203.2	29	737	1.46	2.17	30.5
20462713	4	100	4.5	115.0	200	1.38	11	279.4	29	737	2.06	3.06	30.5



## BLUE FLEXWING® SPECLAR® (XLPE)



### Product Specifications

- APPLICATION:** Handles the majority of today's industrial chemicals in pressure, gravity flow or suction service.
- CONSTRUCTION TUBE:** Clear Specclar® synthetic rubber Cross-Linked Polyethylene (XLPE)
- COVER:** Blue Versigard® synthetic rubber with spiral white stripe (wrapped impression)
- REINFORCEMENT:** Spiral-plyed synthetic fabric with double wire helix
- TEMPERATURE:** -32°C to 66°C
- BRANDING (SPIRAL):** Example: Goodyear® Blue Flexwing® Chemical Transfer Hose with Specclar® 200 psi WP
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock Cam & Groove Fittings with this product. See the Coupling Systems information pages at the back of the catalogue
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 546-066 (1/2" – 4")  
541-066 (6")

### BLUE FLEXWING®

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20018506	1	25	1.47	37.3	200	1.38	8	203	29	737	0.55	0.82	30.5
20018512	1¼	32	1.75	44.5	200	1.38	9	229	29	737	0.70	1.04	30.5
20018517	1½	38	2.04	51.7	200	1.38	10	254	29	737	0.95	1.41	30.5
20018520	1½	38	2.04	51.7	200	1.38	10	254	29	737	0.95	1.41	122
20018524	2	50	2.58	65.5	200	1.38	12	305	29	737	1.22	1.82	30.5
20018525	2	50	2.58	65.5	200	1.38	12	305	29	737	1.22	1.82	61
20018527	2	50	2.58	65.5	200	1.38	12	305	29	737	1.22	1.82	122
20018532	2½	63	3.13	79.5	200	1.38	15	381	29	737	1.65	2.46	122
20018535	3	75	3.70	94.0	200	1.38	18	457	29	737	2.24	3.33	30.5
20018539	4	100	4.73	120.1	200	1.38	24	610	29	737	3.01	4.48	30.5

Note: Refer to the Goodyear® Engineered Products Chemical Resistance Charts pages in Appendix B for specific chemical and temperature compatibility.

## HI-PER®



### Product Specifications

- APPLICATION:** A premium hose which is FEP lined to handle a broad spectrum of fluids and materials in a wide variety of applications.
- CONSTRUCTION TUBE:** FEP has FDA/USDA compliant materials
- COVER:** Blue Versigard® synthetic rubber with bright orange spiral transfer tape (wrapped impression)
- REINFORCEMENT:** Spiral-plied synthetic fabric with double wire helix
- TEMPERATURE:** -40°C to 149°C
- PACKAGING:** Custom lengths available (minimum 5')
- BRANDING (SPIRAL):** Example: Goodyear® Hi-Per® Universal Chemical Hose FEP lined
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock Cam & Groove Fittings with this product. See the Coupling Systems information pages at the back of the catalogue
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 546-256
- NOTE:** Please contact customer service for availability

### HI-PER®

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT	
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.
1/2	12.7	0.97	24.6	200	1.38	3	76	29	737	0.37	0.55
3/4	19.1	1.11	28.2	200	1.38	5	127	29	737	0.56	0.83
1	25.4	1.52	38.6	200	1.38	8	191	29	737	0.84	1.25
1¼	31.8	2.13	54.1	200	1.38	11	279	29	737	0.71	1.06
1½	38.1	2.13	54.1	200	1.38	14	356	29	737	1.24	1.85
2	50.8	2.69	68.3	200	1.38	18	457	29	737	1.71	2.54
2½	63.5	3.14	79.8	200	1.38	22	559	29	737	2.01	2.99
3	76.2	3.67	93.2	200	1.38	35	889	29	737	2.52	3.75

Note: Refer to the Goodyear® Engineered Products Chemical Resistance Charts pages in Appendix B for specific chemical and temperature compatibility.

## PLICORD® EXTREMEFLEX™ BROWN



### Product Specifications

- APPLICATION:** A high-tech, flexible and versatile chemical hose capable of handling a wide variety of acids, alcohols, salt solutions and petroleum-based products.
- CONSTRUCTION TUBE:** Black Chemrin® (CPE) synthetic rubber
- COVER:** Corrugated Brown Versigard® (EPDM) synthetic rubber with white spiral stripe
- REINFORCEMENT:** Spiral plied synthetic fabric with double wire helix
- TEMPERATURE:** -34°C to 135°C
- BRANDING (SPIRAL):** Example: Goodyear® Plicord® ExtremeFlex™ Brown w/ Chemrin® 150 PSI. Made In Canada
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock™ Cam & Groove fittings with the product. See the Coupling Systems information pages at the back of the catalogue
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 546-723

### PLICORD® EXTREMEFLEX™ BROWN

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20524365	1	25	1.42	36.00	150	1.03	1.50	38.10	29	737	0.55	0.75	30.5
20524366	1¼	32	1.63	41.50	150	1.03	2.00	50.80	29	737	0.57	0.85	30.5
20524367	1½	38	1.92	48.70	150	1.03	2.25	57.20	29	737	0.74	1.10	30.5
20524368	2	50	2.44	61.90	150	1.03	3.00	76.00	29	737	0.97	1.45	30.5
20524369	3	75	3.54	89.80	150	1.03	4.50	114.0	29	737	1.80	2.68	30.5
20524381	4	100	4.57	116.1	150	1.03	6.00	114.4	29	737	2.47	3.68	30.5



## DEF TRANSFER HOSE



### Product Specifications

**APPLICATION:** Diesel Exhaust Fluid (DEF: aqueous 32.5% nitrogen solution of high-purity urea in deionized water) is a key component of selective catalytic reduction (SCR) systems, which help diesel vehicles meet stringent emission regulations effective January 1, 2010. DEF is a liquid reducing agent that reacts with engine exhaust in the presence of a catalyst to convert smog-forming nitrogen oxides (NOx) into harmless nitrogen and water vapor.

**Goodyear® Engineered Products DEF Transfer Hose** is specifically designed to convey the high-purity, aqueous urea solution DEF. Hose tube compound is specially formulated with low extraction EPDM and peroxide cured to provide superior extraction levels to significantly reduce contamination. Flexible softwall construction provides superior handling in standard dispensing and reeling applications. Static wire available for installation in Class I, Division 1 areas.

**CONSTRUCTION TUBE:** Specially formulated low-extraction EPDM, peroxide cured

**COVER:** Specially formulated EPDM

**REINFORCEMENT:** Polyester braid

**TEMPERATURE:** -40°C to 125°C

**BRANDING:** Example: Goodyear® DEF Transfer Hose 1½" (38mm)

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 532-019

### DEF TRANSFER HOSE

FEATURES	BENEFITS
Specially formulated low extraction EPDM compound for tube peroxide cured	Provides superior extraction levels to significantly reduce contamination that can clog an SCR system and stop a truck
Enhanced manufacturing practices	Significantly reduces contamination that can clog an SCR system and stop a truck
Premium braided construction	Reduced volumetric expansion to meet Weights and Measures system criteria
Static Wire	Requirement for installations in Class I, Division 1 areas as outlined in NFPA 70
Meets ISO 22241 standard	Ensures desirable characteristics of AUS 32 (DEF) are met, such as quality, safety, reliability and contamination

### DEF TRANSFER HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20531743	1½	38	2.1	53.3	250	1.72	.80	1.19	30.5

## BROWN CHEM-ACID DISCHARGE



### Product Specifications

- APPLICATION:** A versatile chemical discharge hose capable of handling a wide variety of acids, petroleum based products and other chemicals.
- CONSTRUCTION TUBE:** Black Chemrin® (Chlorinated Polyethylene)
- COVER:** Brown Versigard™ (EPDM with Wrapped impression)
- REINFORCEMENT:** Synthetic fabric plies
- TEMPERATURE:** -34°C to 135°C
- BRANDING (SPIRAL):** Continuous spiral brand “Goodyear® Brown Chemi-Acid Discharge. Caution: Hose and couplings should be inspected prior to each use. Use of damaged assembly could be hazardous”
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### PLICORD® EXTREMEFLEX™ BROWN

PRODUCT NO.	ID		NOM. OD		MAX. WP		SAFETY FACTOR	WEIGHT	ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa			
20144356	3/4	19	1.47	37.31	200	1.38	4:1	0.85	30.5
20018461	1	25	1.55	39.40	200	1.38	4:1	0.95	30.5
20149337	1¼	32	1.81	46.10	200	1.38	4:1	1.15	30.5
20149357	1½	38	2.05	52.10	200	1.38	4:1	1.33	30.5
20132863	2	50	2.61	66.40	200	1.38	4:1	1.89	30.5
20149358	2½	63	3.11	79.00	150	1.00	4:1	2.30	30.5
20149338	3	75	3.60	91.40	150	1.00	4:1	2.70	30.5
20149339	4	100	4.67	118.60	150	1.00	4:1	3.85	30.5

\* Safety factor 4:1



**5.00**

**CLEANING  
EQUIPMENT**



## FORTRESS® 300 WITH Microban® PRODUCT PROTECTION



### Product Specifications

- APPLICATION:** A high-quality construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse affects of oil and animal fats. The cover of our Fortress® 300 hose incorporates Microban's®\* antimicrobial built-in product protection.
- CONSTRUCTION TUBE:** Black Nitrile synthetic rubber
- COVER:** Yellow Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® product protection
- REINFORCEMENT:** Spiral synthetic yarn
- TEMPERATURE:** -29°C to 93°C
- BRANDING:** Example: Fortress® 300 with Microban® Antimicrobial Product Protection 3/8" 300 psi WP. Made in USA. Goodyear®
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 569-120 (Yellow)

### FORTRESS® 300

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20135640	1/2	12	0.90	22.8	300	2.07	0.29	0.43	152.4
20135645	3/4	19	1.19	30.2	300	2.07	0.41	0.61	152.4
20135646	1	25	1.50	38.1	300	2.07	0.60	0.89	137.2

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## FORTRESS® 3000 WITH Microban® PRODUCT PROTECTION



### Product Specifications

<b>APPLICATION:</b>	Fortress® 3000 is for use on pressure washer machines with working pressures up to 3000 psi. Applications include washdown service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse effects of oil and animal fats. The cover of Fortress® Washdown hose incorporates Microban's®* antimicrobial built-in product protection.
<b>CONSTRUCTION TUBE:</b>	Nitrile synthetic rubber
<b>COVER:</b>	Yellow Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® built-in product protection
<b>REINFORCEMENT:</b>	Braided (1) steel wire
<b>TEMPERATURE:</b>	-29°C to 121°C
<b>BRANDING:</b>	Example: Fortress® 3000 with Microban® Antimicrobial Product Protection 3/8" 3000 psi WP. Made in USA. Goodyear®
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	539-400 (Yellow) 539-401 (Blue)

### FORTRESS® 3000

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20139340	3/8	10	0.69	17.5	3000	20.69	0.24	0.22	152.4
20141423	1/2	12.7	0.82	20.8	3000	20.69	0.32	0.48	152.4

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## BLUE NEPTUNE™ 3000



### Product Specifications

- APPLICATION:** For use on pressure washer machines with working pressures up to 3000 psi.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber
- COVER:** Blue oil-resistant synthetic rubber, RMA Class B (Medium Oil Resistance)
- REINFORCEMENT:** Braided (1) steel wire
- TEMPERATURE:** -29°C to 121°C
- BRANDING:** Example: Neptune™ 3000 Goodyear® 3/8" 3000 psi WP. Made in USA
- NON-STOCK/SIZES:** For special production run minimum requirements.
- COLOURS:** Black, Yellow and Grey covers are available on request
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 539-085 (black)  
539-089 (blue)  
539-104 (yellow)  
539-090 (gray)

### NEPTUNE® 3000

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20023623	1/4	6	0.53	13.5	3000	20.69	0.15	0.22	152.4
20023638	3/8	10	0.69	17.5	3000	20.69	0.24	0.36	152.4
20023670	1/2	12	0.82	20.8	3000	20.69	0.35	0.48	152.4

Note: Not recommended for steam service.

Coupled assemblies available on request.





**6.00**

**FOOD**

**FOOD TRANSFER**



## WHITE PLICORD® EXTREMEFLEX™ FOOD GRADE



### Product Specifications

**APPLICATION:** A high-tech, flexible corrugated hose with pretzel-like agility and proven performance. Best of all, it's available at a non-corrugated price, making it a great value. With ExtremeFlex, there's even more to appreciate:

- **Flexible Handling:** Easier to move in and out of tight spaces and around sharp corners.
- **Lightweight:** Easier to lift and carry, so there are fewer workplace injuries.
- **Lower Force to Bend:** Easier to connect and disconnect, keeping productivity high.

**CONSTRUCTION TUBE:** White Chemivic™ synthetic rubber (FDA/USDA compliant and conforms to 3-A Sanitary Standard 18-03)

**COVER:** White Chemivic™ corrugated synthetic rubber (wrapped impression)

**REINFORCEMENT:** Spiral-plyed synthetic fabric with galvanized wire helix

**TEMPERATURE:** - 32°C to 100°C

**BRANDING (SPIRAL):** Goodyear® Plicord® ExtremeFlex® Food Grade 150 PSI WP

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 549-462 (white)      549-164 (gray)

**NOTE:** Insta-lock food fittings available; BSM and Tri Clover

### PLICORD® EXTREMEFLEX™ FOOD GRADE

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20019284	3/4	19	1.2	30.5	150	1.03	2	50	29	737	0.47	0.70	30.5
20607375	1	25	1.4	36.8	150	1.03	1	25	29	737	0.59	0.88	30.5
20607376	1¼	32	1.7	42.2	150	1.03	1¼	32	29	737	0.63	0.94	30.5
20656565	1½	38	1.9	48.8	150	1.03	1½	38	29	737	0.77	1.15	30.5
20478040	2	50	2.4	62.0	150	1.03	2	51	29	737	1.00	1.48	30.5
20478041	2½	63	3.0	77.5	150	1.03	2½	63	29	737	1.61	2.38	30.5
20478043	3	75	3.5	89.9	150	1.03	3	76	29	737	1.89	2.79	30.5
20478044	4	100	4.6	116.6	150	1.03	4	102	29	737	2.69	3.98	30.5

For Goodyear® Engineered Products food compliance information, see Appendix C.  
3/4 hose supplied as White Flexwing



## RED PLICORD® EXTREMEFLEX™ FOOD GRADE



### Product Specifications

**APPLICATION:** A high-tech, flexible corrugated hose with pretzel-like agility and proven performance. Best of all, it's available at a non-corrugated price, making it a great value. With ExtremeFlex, there's even more to appreciate:

- **Flexible Handling:** Easier to move in and out of tight spaces and around sharp corners.
- **Lightweight:** Easier to lift and carry, so there are fewer workplace injuries.
- **Lower Force to Bend:** Easier to connect and disconnect, keeping productivity high.

**CONSTRUCTION TUBE:** White Chemivic™ synthetic rubber (FDA/USDA compliant and conforms to 3-A Sanitary Standard 18-03)

**COVER:** Red Chemivic™ corrugated synthetic rubber (wrapped impression)

**REINFORCEMENT:** Spiral-plied synthetic fabric with galvanized wire helix

**TEMPERATURE:** -32°C to 100°C

**BRANDING (SPIRAL):** Goodyear® Plicord® ExtremeFlex® Food Grade 150 PSI WP

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 549-707

**NOTE:** Insta-lock food fittings available: BSM and Tri Clover

### PLICORD® EXTREMEFLEX™ FOOD GRADE

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20531221	2	50	2.4	62.0	150	1.03	2	51	29	737	1.00	1.48	30.5
20531222	3	75	3.5	89.9	150	1.03	3	76	29	737	1.89	2.79	30.5

For Goodyear® Engineered Products food compliance information, see Appendix C.



## VINTNER™



### Product Specifications

**APPLICATION:** For handling in-plant and/or tank truck transfer of wine, beer, potable water and other nonoily, liquid foodstuffs.

**CONSTRUCTION TUBE:** White Chlorobutyl (FDA/USDA compliant and conforms to 3-A sanitary standard 18-03)

**COVER:** Gray Versigard® synthetic rubber (wrapped)/purple branding tape

**REINFORCEMENT:** Spiral-plied synthetic fabric with Monofilament Helix

**TEMPERATURE:** - 34°C to 104°C

**BRANDING:** Continuous spiral brand Goodyear® Plicord Vintner 250 psi; FDA, 3- A, and USDA.

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

## VINTNER™

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	
20020354	1	25	1.62	41.1	250	1.72	3	76	27	686	0.71	1.06	30.5
20020356	1½	38	2.11	53.6	250	1.72	4	102	27	686	0.98	1.46	30.5
20222061	1½	38	2.11	53.6	250	1.72	4	102	27	686	0.98	1.46	61
20020361	2	50	2.68	68.1	250	1.72	7	178	27	686	1.38	2.05	30.5
20136400	2	50	2.68	68.1	250	1.72	7	178	27	686	1.38	2.05	61
20020362	2½	63	3.21	81.5	250	1.72	10	254	27	686	1.78	2.65	30.5
20020365	3	75	3.85	97.8	250	1.72	12	305	27	686	2.59	3.86	30.5

For Goodyear® Engineered Products food compliance information, see Appendix C.

## FOOD TRANSFER

Refer to Food Hose Recommendation Guide below for specific hose application capabilities.

## FOOD HOSE RECOMMENDATION GUIDE

TUBE: Compound TUBE: Colour	CHEMIVIC™ WHITE	PURETENT™ TAN	PURETENT™ WHITE	CHLOROBUTYL WHITE	PLIOVIC® CLEAR
HOSE NAME	WHITE FLEXWING, WHITE FLEXTRA, GRAY FLEXTRA LT, GRAY FOOD, WHITE SOFTWALL	FLEXWING, TAN FLEXTRA, TAN SOFTWALL	BLUE FLOUR DISCHARGE, HARVEST	WINELINE, BREWLINE, VINTNER	PLIOVIC® FG, NUTRIFLO, NUTRIFLEX, NUTRIFLEX SW
<b>FOOD</b>					
<b>(B)</b>					
Beet Sugar, granular	I	A	A	X	B
Buttermilk, dried	X	A	A	X	B
<b>(C)</b>					
Cane Sugar, granular	I	A	A	X	B
Cashew Nut Oil	A	X	X	X	X
Castor Oil	A	X	X	X	X
Citric Acid	A	A	A	A	B
Cocoa Butter	A	X	X	X	I
Coconut Oil	A	X	X	X	X
Corn Oil	A	X	X	X	X
Cottonseed Oil	A	X	X	X	X
<b>(F)</b>					
Fish Meal	A	X	X	X	B
Flour	I	A	A	X	
<b>(G)</b>					
Grape Juice	A	X	X	A	B
<b>(L)</b>					
Lactic Acid	A	B	B	B	X
Lard Oil	A	X	X	X	X
Linseed Oil	A	X	X	X	X
Liquor (spirits)	B	X	X	X	B
<b>(M)</b>					
Milk	A	X	X	A	B
Mineral Oil	A	X	X	X	B
Molasses	A	A	A	A	A
<b>(O)</b>					
Olive Oil	A	X	X	X	X
Orange Juice	A	X	X	A	A
<b>(P)</b>					
Palm Oil	A	X	X	X	X
Paraffin	A	X	X	X	B
Peanut Oil	A	X	X	X	X
Potato Flour	I	A	A	X	A
<b>(S)</b>					
Salt, granular, table grade	I	A	A	X	A
Shortening	A	X	X	X	I
Soybean Oil	A	X	X	X	X
Sucrose	A	A	A	X	A
Sugar, granulated	I	A	A	X	A
Sugar, syrup	A	A	A	A	A
<b>(T)</b>					
Tallow	A	X	X	X	X
Tomato Juice, paste & puree sauce	A	X	X	I	B
<b>(V)</b>					
Vegetable Oil	A	X	X	X	X
Vinegar	A	X	X	A	A
<b>(W)</b>					
Water, Potable	A	X	X	A	A
Whiskey	B	X	X	X	X
Wine	A	X	X	A	I

Key: A – Excellent; B – Good; X – Not recommended; I – Insufficient information.

Note: For temperatures in excess of 150°F, consult Customer Service.



**7.00**

**FOOD**

**FOOD WASHDOWN**



## FORTRESS® 300 WITH Microban® PRODUCT PROTECTION



### Product Specifications

**APPLICATION:** A high-quality construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse affects of oil and animal fats. The cover of our Fortress® 300 hose incorporates Microban's®\* antimicrobial built-in product protection.

**CONSTRUCTION TUBE:** Black Nitrile synthetic rubber

**COVER:** Yellow Carbyn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® product protection

**REINFORCEMENT:** Spiral synthetic yarn

**TEMPERATURE:** -29°C to 93°C

**BRANDING:** Example: Fortress® 300 with Microban® Antimicrobial Product Protection 3/8" 300 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 569-120 (Yellow)

### FORTRESS® 300

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20135640	1/2	12	0.90	22.8	300	2.07	0.29	0.43	152.4
20135645	3/4	19	1.19	30.2	300	2.07	0.41	0.61	152.4
20135646	1	25	1.50	38.1	300	2.07	0.60	0.89	137.2

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

# FORTRESS® 3000 WITH Microban® PRODUCT PROTECTION



## Product Specifications

**APPLICATION:** Fortress® 3000 is for use on pressure washer machines with working pressures up to 3000 psi. Applications include washdown service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse effects of oil and animal fats. The cover of Fortress® Washdown hose incorporates Microban's®\* antimicrobial built-in product protection.

**CONSTRUCTION TUBE:** Nitrile synthetic rubber

**COVER:** Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® built-in product protection

**REINFORCEMENT:** Braided (1) steel wire

**TEMPERATURE:** -29°C to 121°C

**BRANDING:** Example: Fortress® 3000 with Microban® Antimicrobial Product Protection 3/8" 3000 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 539-400 (Yellow)

## FORTRESS® 3000

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20139340	3/8	10	0.69	17.5	3000	20.69	0.24	0.36	152.4
20141423	1/2	12.7	0.82	20.8	3000	20.69	0.32	0.48	152.4

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## BLUE FORTRESS® 300 WITH WITH FDA COMPLIANT WHITE TUBE



### Product Specifications

**APPLICATION:** A high-quality construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse effects of oil and animal fats. The cover of our Blue Fortress® 300 hose incorporates Microban's® antimicrobial built-in product protection. The white tube is comprised of FDA compliant materials.

**CONSTRUCTION TUBE:** White FDA compliant Nitrile synthetic rubber

**COVER:** Blue Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® product protection

**REINFORCEMENT:** Spiral synthetic yarn

**TEMPERATURE:** -29°C to 93°C

**BRANDING:** Example: Fortress® 300 with Microban® Antimicrobial Product Protection 3/4" 300 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 569-121

### BLUE FORTRESS® 300 WITH FDA COMPLIANT WHITE TUBE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20189064	1/2	12	0.90	22.8	300	2.07	0.30	0.45	152.4
20190318	3/4	19	1.19	30.2	300	2.07	0.44	0.65	152.4
20459020	1	25	1.50	38.1	300	2.07	0.64	0.95	137.2

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## SPECTRA® 300



## Product Specifications

- APPLICATION:** A high-quality, economical construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries.
- CONSTRUCTION TUBE:** Black Nitrile synthetic rubber, RMA Class A (High Oil Resistance), non-FDA
- COVER:** White Chemivic™ synthetic rubber, RMA Class A (High Oil Resistance)
- REINFORCEMENT:** Spiral synthetic yarn
- TEMPERATURE:** -29°C to 93°C
- BRANDING:** Example: Spectra® (19.1 mm) 300 psi WP. Made in USA. Goodyear®
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 569-019

## SPECTRA® 300

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20026069	1/2	12	0.91	23.1	300	2.07	0.27	0.40	152.4
20026071	3/4	19	1.18	30.0	300	2.07	0.40	0.60	152.4
20026078	1	25	1.50	38.1	275	1.90	0.60	0.89	137.2



**8.00**  
**MARINE**



## PLICORD® SAE J1527 TYPE A2 FUEL FILL



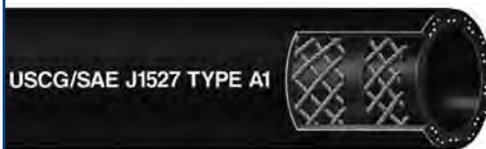
### Product Specifications

- APPLICATION:** The Plicord® SAE J1527 Type A2, ISO 7840 and CE Fuel Fill hose is for marine gasoline tanks. It is the connection from the boat's fuel fill port down to the boat's fuel tank.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber RMA Class A (High Oil Resistance)
- COVER:** Chemivic™ synthetic rubber (wrapped impression)
- REINFORCEMENT:** Spiral-plied synthetic fabric with wire helix
- TEMPERATURE:** -29°C to 82°C
- BRANDING:** Example: Goodyear® SAE J1527, USCG Type A2, ISO 7840
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 543-414

### PLICORD® SAE J1527 TYPE A2

PRODUCT NO.	ID		NOM. OD		MAX. WP		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	lb./ft.	kg./m.	m.
20133334	3/4	19	1.16	29.4	100	0.69	29	737	0.35	0.51	30.5
20087653	1	25	1.50	38.1	100	0.69	29	737	0.43	0.64	30.5
20017854	1½	38	1.86	47.1	100	0.69	29	737	0.65	0.97	30.5
20025246	2	50	2.43	61.7	50	0.34	29	737	1.01	1.50	30.5

## MARINE FUEL LINE USCG/SAE J1527 & ISO 7840 TYPE A1



### Product Specifications

- APPLICATION:** For marine gasoline tanks. For fuel feed and vent applications on marine pleasure craft. It meets U.S. Coast Guard and International Marine Certification Institute requirements for type A1 service.
- CONSTRUCTION TUBE:** Black Nitrile synthetic rubber RMA Class A (High Oil Resistance)
- COVER:** Black Chemivic™ synthetic rubber
- REINFORCEMENT:** Spiral synthetic yarn
- TEMPERATURE:** -17°C to 46°C
- BRANDING:** Example: Goodyear® USCG/SAE J 1527 Type A1 ISO 7840-A1 CE
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 595-032

### MARINE FUEL LINE SAE J1527 TYPE A1

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20069186	1/4	6	0.65	16.5	49	0.34	0.17	0.25	61
20069187	5/16	8	0.71	18.0	49	0.34	0.19	0.28	61
20069188	3/8	10	0.78	19.8	49	0.34	0.20	0.30	61
20028994	1/2	12	0.89	23.0	36	0.25	0.26	0.39	152.4
20106800	5/8	16	1.06	25.8	36	0.25	0.35	0.52	61



**9.00**

**MATERIAL HANDLING  
ABRASIVES**



## PLICORD® BLAST 2 PLY



### Product Specifications

- APPLICATION:** Heavy-duty hose for steel shot or sand blasting in cleaning or finishing metal, stone, glass or other surfaces.
- CONSTRUCTION TUBE:** Tufsyn® synthetic rubber (static dissipating/static conductive)
- COVER:** 2 ply: Black Plioflex® synthetic rubber (wrapped impression)
- REINFORCEMENT:** Spiral-plied synthetic fabric
- TEMPERATURE:** -32°C to 82°C
- BRANDING (SPIRAL):** Example: Goodyear® Plicord® Blast 150 psi WP
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 549-020

### PLICORD® BLAST 2 PLY

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20018954	3/4	19	1.48	37.6	150	1.03	0.68	1.01	30.5
20018963	1	25	1.88	47.8	150	1.03	1.05	1.56	30.5
20018972	1¼	32	2.16	54.9	150	1.03	1.26	1.88	30.5
20018982	1½	38	2.38	60.5	150	1.03	1.42	2.11	30.5
20018993	2	50	2.86	72.6	150	1.03	1.70	2.53	30.5

## ARTRAC®



## Product Specifications

- APPLICATION:** The Artrac® hose is used for a variety of abrasive, material-handling applications to transfer sand, gravel, cement, fly ash, glass, metals, plastic pellets, fertilizers, rock salts and slurries.
- CONSTRUCTION TUBE:** Thermoplastic alloyed blend of polyurethane and PVC (static dissipating/static conductive)
- COVER:** Thermoplastic alloyed blend of nitrile, polyurethane, and PVC (nonconductive)  
(Available with conductive cover—see order code below.)
- REINFORCEMENT:** Rigid high-density PVC helix
- TEMPERATURE:** -40°C to 70°C
- BRANDING:** Not branded
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 586-462  
586-522 (with conductive cover)

## ARTRAC® ABRASIVE MATERIAL HANDLING

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20013527	1¼	19	1.63	41.4	45	0.31	3	76	29	737	0.34	0.51	30.5
20013528	1½	38	1.89	48.0	40	0.28	3	81	29	737	0.40	0.60	30.5
20013529	2	50	2.47	62.7	40	0.28	6	140	29	737	0.67	1.00	30.5
20013531	2½	63	3.05	77.5	35	0.24	6	152	29	737	0.87	1.29	30.5
20013532	3	75	3.69	93.7	30	0.21	8	191	29	737	1.16	1.73	30.5
20013535	4	100	4.81	122.2	30	0.21	11	279	29	737	2.16	3.21	30.5
20013539	5	125	5.78	146.8	30	0.21	10	381	29	737	2.60	3.87	30.5
20013545	6	150	7.08	179.8	25	0.17	20	508	29	737	3.43	5.10	30.5
20013549	8	200	9.22	234.2	20	0.14	30	762	29	737	5.84	8.69	6.1
20250975	8	200	9.22	234.2	20	0.14	30	768	29	737	5.84	8.69	20
20013554	10	254	11.21	284.7	20	0.14	45	1143	29	737	7.96	11.85	6.1

## ARVAC™ SW



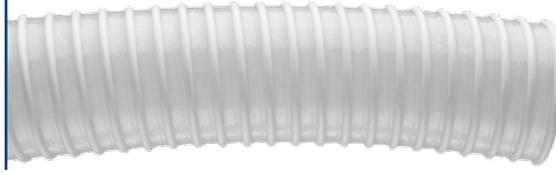
### Product Specifications

- APPLICATION:** Heavy-duty abrasion-resistant suction hose used for a variety of abrasive material-handling applications, including the transfer of sand, gravel, cement, fly ash, glass, metals, plastic pellets, fertilizers, rock salts and slurries. Static wire for static dissipation.
- CONSTRUCTION TUBE:** Higher-temperature urethane
- COVER:** Static-dissipating thermoplastic alloyed blend of Nitrile, polyurethane and PVC
- REINFORCEMENT:** Rigid high-density PVC helix
- TEMPERATURE:** -40°C to 70°C
- BRANDING:** Not branded
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 586-550

### ARVAC™ SW

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20448191	3	75	3.60	91.5	30	0.21	6.0	152	29	737	1.17	1.73	30.5
20448190	4	100	4.74	120.5	30	0.21	7.0	177	29	737	1.97	2.91	30.5
20447688	6	150	6.89	175.0	25	0.17	8.0	203	29	737	3.32	4.91	30.5

## SPIRAFLEX® AIR SEEDER HOSE



### Product Specifications

**APPLICATION:** For dry conveying of seeds and other materials where abrasion is present and service conditions are moderate. Excellent for low-pressure blowing applications.

**CONSTRUCTION TUBE:** Clear thermoplastic urethane

**COVER:** Clear flexible vinyl

**REINFORCEMENT:** White rigid vinyl helix

**TEMPERATURE:** - 18°C to 70°C

**BRANDING:** Date code only

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 586-450

### SPIRAFLEX® AIR SEEDER

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20294121	1	25	1.25	32.0	60	.41	3	76.19	29	737	.195	0.29	20
20294123	1¼	32	1.55	39.4	55	.38	3.5	88.90	29	737	.229	0.34	20
20294124	1½	38	1.82	46.2	50	.34	4	101.6	29	737	.320	0.48	20
20294126	1¾	45	2.07	52.5	45	.31	4.5	114.3	29	737	.378	0.56	20
20294125	2	50	2.37	60.4	40	.27	5	127	29	737	.420	0.63	20
20294128	2½	63	2.87	72.9	40	.27	7	177.8	29	737	.650	0.99	20
20294130	3	76	3.42	86.8	35	.24	8	203.2	29	737	.890	1.33	20

## V801 MUFF COUPLING HOSE



### Product Specifications

- APPLICATION:** An abrasive slurry hose to be used in conjunction with split muff couplings (also available). The hose has the high strength needed to handle pressure or suction service in the transfer of dry bulk, slurry, salt, cement, fertilisers and a limited number of oil based products.
- CONSTRUCTION TUBE:** SBR / NBR Blended
- COVER:** Black NR / EPDM Blended; wrapped finish
- REINFORCEMENT:** Synthetic fabric plies (2) with wire helix
- TEMPERATURE:** -20°C to 70°C
- BRANDING:** Example: Veyance V801 Muff Coupling Hose WP 100PSI
- COUPLINGS:** Standard aluminium muff couplings (other materials available on special order) Table D as standard; other tables available on request
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### V801 MUFF COUPLING HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572411	2	50	1.96	50	100	0.69	3.31	4.93	30
20572412	3	75	2.95	75	100	0.69	4.06	6.06	30
20572405	4	100	5.03	128	100	0.69	5.00	7.45	30
20572406	5	125	6.18	157	100	0.69	6.54	9.75	30
20572407	6	150	7.28	185	100	0.69	8.01	11.94	30
20572408	8	200	9.25	235	100	0.69	12.18	18.17	10
20572409	10	250	11.29	287	100	0.69	16.52	24.63	10
20572410	12	300	13.54	344	100	0.69	22.39	33.39	10

## ALUMINIUM MUFF COUPLINGS



### Product Specifications

**APPLICATION:** Split Muff Couplings to suit V801 Muff Coupling Hose

**MATERIAL:** High strength alloy – standard Aluminium (other materials available on request)

**DESIGN:** Full integrated sleeve with standard Table D flanges. Sleeve bore is specifically roughened to give exceptional grip on the hose. This technique avoids the need for rings, ridges or spikes in the bore of the coupling, which can depress the hose causing high wear on the inner tube and premature failing at the hose end. Can also be drilled to other tables. Maximum working pressure 100psi (0.69 Mpa)

### ALUMINIUM MUFF COUPLINGS

PRODUCT NO.	HOSE SIZE		FLANGE			BOLTS		APPROX WEIGHT 2 HALVES, BOLTS KG.
	in.	mm.	NO. OF HOLES in.	BOLT SIZE mm.	P.C.D mm.	NUMBER	BOLT SIZE mm.	
20572195	2	50	4	M16 x 70	114	4	M12 x 70	2.9
20572196	3	75	4	M16 x 70	146	4	M12 x 70	3.6
20572197	4	100	8	M16 x 70	178	6	M12 x 70	4.5
20572198	5	125	8	M16 x 70	210	6	M12 x 70	5.9
20572199	6	150	8	M16 x 70	235	6	M12 x 70	6.8
20572200	8	200	8	M16 x 80	292	8	M16 x 80	10.8
20572201	10	250	8	M20 x 80	356	8	M20 x 100	16.6
20572202	12	300	12	M20 x 80	406	8	M20 x 100	21.2



**10.00**

**MATERIAL HANDLING  
BULK TRANSFER**



67-1517

800-424-9300

## BLACK SOFTWALL



### Product Specifications

- APPLICATION:** For the discharge of dry bulk cement from tank truck and in-plant service.
- CONSTRUCTION TUBE:** 1/8" (static dissipating/static conductive) Black Tufsyn® synthetic rubber. Available in 1/8", 3/16", and 1/4" tube gauges
- COVER:** Black Plioflex® synthetic rubber with white spiral stripe (wrapped impression)
- REINFORCEMENT:** Spiral-plied synthetic fabric
- TEMPERATURE:** -32°C to 82°C
- PACKAGING:** 100' lengths, coiled and polywrapped
- BRANDING (SPIRAL):** Example: Goodyear® Black Softwall
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock Cam & Groove Fittings with this product. See the Coupling Systems information pages at the back of the catalogue
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 549-149 (3/16" tube gauge 75psi)  
549-148 (1/4" tube gauge 50psi)

### BLACK SOFTWALL

PRODUCT NO.	ID		TUBE GAUGE		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20019281	4	100	3/16	5	4.57	116.2	75	0.52	1.92	2.85	30.5
20019277	4	100	1/4	6	4.67	118.7	50	0.34	2.29	3.41	30.5

## PLICORD® TORRIDAR™ HOT AIR BLOWER



### Product Specifications

<b>APPLICATION:</b>	Designed to transfer hot, non-oily air (up to 400°F) from manifold blowers or in-plant compressors to holding tanks used in the transfer of dry bulk materials.
<b>CONSTRUCTION TUBE:</b>	Black, STF (Super Thermo-Flo) Versigard® synthetic rubber
<b>COVER:</b>	Black, weather-resistant, STF (Super Thermo-Flo) Versigard® synthetic rubber (wrapped impression)
<b>REINFORCEMENT:</b>	Spiral-plied synthetic fabric with double wire helix
<b>TEMPERATURE:</b>	-40°C to 204°C
<b>BRANDING (SPIRAL):</b>	Example: Goodyear® Torridair™ Blower Hose 400°F
<b>COUPLINGS:</b>	Use Goodyear® Engineered Products Insta-Lock Cam & Groove Fittings with this product. See the Coupling Systems information pages at the back of the catalogue
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	549-856

### PLICORD® TORRIDAIR™

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20020260	3	75	3.53	89.7	100	0.69	7	178	29	737	1.84	2.74	30.5
20020261	4	100	4.60	116.8	100	0.69	16	400	29	737	2.47	3.68	30.5

## SPIRAFLEX® MULCH BLOWER



### Product Specifications

- APPLICATION:** For dry conveying of mulch and other materials where abrasion is present and service conditions are moderate. Excellent for low-pressure blowing applications.
- CONSTRUCTION TUBE:** Clear Flexible PVC
- REINFORCEMENT:** Black Rigid PVC Helix
- TEMPERATURE:** -18°C to 70°C
- BRANDING:** Not branded
- NOTE:** 5" & 6" available on request
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 586-479

### SPIRAFLEX® MULCH BLOWER

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20013644	4	100	4.46	113.2	15	0.10	6	152.4	29	737	1.00	1.49	30.5





**11.00**

**MATERIAL HANDLING  
CEMENT & CONCRETE**



## ALLCRETE® TEXTILE PLASTER, GROUT & CONCRETE



### Product Specifications

- APPLICATION:** For use in plaster & grout and shotcrete applications, handling a multitude of materials being pumped to concrete structures, dams, tunnel faces, swimming pools, etc. For use as a flexible connection between pumping equipment and hard piping. Exceeds ASME B30.27-2009. 2:1 WP to burst ratio.
- CONSTRUCTION TUBE:** Black Tufsyn® synthetic rubber
- COVER:** Black Plioflex® rubber (wrapped impression)
- REINFORCEMENT:** Spiral-plied high-strength fabric
- TEMPERATURE:** -32°C to 82°C
- BRANDING (SPIRAL):** Example: Allcrete® Textile Ply Plaster, Grout Concrete Goodyear® 2" 1233 psi / 85 Bar WP Weight filled with concrete (150 lbs/ft³). Exceeds ASME B30.27-2009
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 549-638

### ALLCRETE® TEXTILE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20019947	2	50	2.83	71.8	1233	8.5	1.46	2.18	30.5
20019960	2½	63	3.40	86.3	1233	8.5	1.96	2.29	30.5
20019965	3	75	3.92	99.6	1233	8.5	2.39	3.56	30.5
20019968	3½	88	4.44	113	1233	8.5	2.69	4.01	30.5
20019971	4	100	4.96	126.0	1233	8.5	3.16	4.67	30.5

Available in fitted assemblies - hardened shouldered victaulic stems

## ALLCRETE® WIRE



## Product Specifications

<b>APPLICATION:</b>	For handling wet concrete with high head pressures at the critical flex areas of a concrete boom truck and as a discharge hose on the delivery end of high-pressure concrete pumps. Exceeds ASME B30.27-2009. 2:1 WP to burst ratio.
<b>CONSTRUCTION TUBE:</b>	Black Tufsyn® synthetic rubber
<b>COVER:</b>	Black Plioflex® rubber (wrapped impression)
<b>REINFORCEMENT:</b>	Spiral-ply high-strength wire
<b>TEMPERATURE:</b>	-40°C to 82°C
<b>BRANDING (SPIRAL):</b>	Allcrete® Steel Reinforced Concrete Hose Goodyear® 3" ID 1233 psi / 85 Bar WP. Weight filled with concrete (150 lbs/ft <sup>3</sup> ). Exceeds ASME B30.27-2009
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	549-670

## ALLCRETE® WIRE

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	lb./ft.	kg./m.	m.
20187842	1½	38	2.48	63.2	1233	8.5	8	203	2.19	3.27	20
20187843	2	50	3.01	76.4	1233	8.5	9	275	2.75	4.10	20
20187844	2½	63	3.50	88.9	1233	8.5	12	300	3.28	4.92	20
20187845	3	75	3.98	101.3	1233	8.5	14	350	3.80	5.65	20
20187846	3½	88	4.52	115	1233	8.5	15	381	4.40	6.56	20
20187847	4	100	5.02	127.4	1233	8.5	16	400	4.90	7.29	20
20020026	5	125	6.00	152.5	1233	8.5	20	500	5.98	8.90	15.25

Available in fitted assemblies - hardened shouldered victaulic stems

## ALLCRETE® WIRE WITH SURVIVOR TUBE

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	lb./ft.	kg./m.	m.
20746458	1½	38	2.48	63.2	1233	8.5	8	203	2.19	3.27	20
20746459	2	50	3.01	76.4	1233	8.5	9	275	2.75	4.10	20
20746510	2½	63	3.50	88.9	1233	8.5	12	300	3.28	4.92	20
20746511	3	75	3.98	101.3	1233	8.5	14	350	3.80	5.65	20
20746512	3½	88	4.52	115	1233	8.5	15	381	4.40	6.56	20
20746512	4	100	5.02	127.4	1233	8.5	16	400	4.90	7.29	20
20746513	5	125	6.00	152.5	1233	8.5	20	500	5.98	8.90	20

Available in fitted assemblies - hardened shouldered victaulic stems

## G820 SUPER CONCRETE DELIVERY HOSE



### Product Specifications

**APPLICATION:** Goodyear®'s G820 Super Concrete Delivery is a premium quality hose for heavy duty/high pressure concrete placement applications in concrete structures, dams, tunnel faces etc. Ideal for use as a flexible connection between pumping equipment and hard piping.

**CONSTRUCTION TUBE:** 6.4mm Black Tufsyn® Synthetic® Rubber

**COVER:** 2.4mm Black Tufsyn® Synthetic® Rubber

**REINFORCEMENT:** Six Spiral-ply of high-strength fabric

**TEMPERATURE:** -32°C to 82°C

**BRANDING:** Continuous yellow spiral brand "G820 Super Concrete Delivery by Goodyear® 85 bars wp Made in Canada"

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 549-005

### G820 SUPER CONCRETE DELIVERY HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20432858	2	50	3.14	79.8	1233	8.5	2.20	3.28	20
20576696	2½	63	3.64	92.33	1233	8.5	2.62	3.91	20
20308378	3	75	4.13	104.8	1233	8.5	3.04	4.53	20
20308379	3½	88	4.67	118.6	1233	8.5	3.50	5.22	20
20308390	4	100	5.15	130.8	1233	8.5	3.91	5.83	20

Available in fitted assemblies - hardened shouldered victaulic stems





**12.00**  
**MINING**



## MINE SPRAY



### Product Specifications

- APPLICATION:** For general underground water spray service in dust control applications. It is also used on continuous mining machinery at the headface and on other mechanical mining machines.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber RMA Class B (medium oil resistance)
- COVER:** Yellow Chemivic™ synthetic rubber RMA Class B (medium oil resistance) (Meets flame test requirements of MSHA Schedule 26-Section 18.65), smooth finish
- REINFORCEMENT:** Braided (1) steel wire
- TEMPERATURE:** -18°C to 93°C
- BRANDING:** Example: Goodyear® 1" Mine Spray 1000 psi WP, Fire-Resistant, USMSHA IC-11/9. Made in USA
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 539-421

### MINE SPRAY

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20024121	3/4	19	1.14	29.0	1000	6.9	0.44	0.65	30.5
20024129	1	25	1.45	36.8	1000	6.9	0.63	0.94	30.5
20024138	1¼	32	1.75	44.5	1000	6.9	0.86	1.28	30.5
20024143	1½	38	1.98	50.3	1000	6.9	1.08	1.61	30.5
20024154	2	51	2.55	64.8	1000	6.9	1.57	2.34	30.5

## PLICORD® BLAST LOADING HOSE



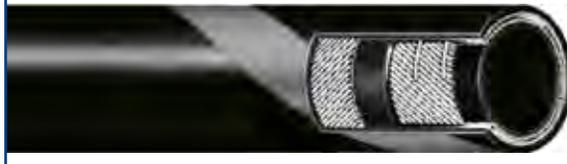
### Product Specifications

<b>APPLICATION:</b>	Plicord Blast Loading Hose is used in the delivery of Ammonia Nitrate materials into blast holes. Specifically designed for use in reeling applications that require longitudinal tensile strength.
<b>CONSTRUCTION TUBE:</b>	Black Conductive Nitrile
<b>COVER:</b>	Black Conductive Nitrile
<b>REINFORCEMENT:</b>	2, 4 fabric plies and twin wire helix with boot straps
<b>TEMPERATURE:</b>	-32°C to 93°C
<b>BRANDING:</b>	Continuous red spiral brand "Goodyear® Plicord Blast Loading, made in Canada"
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODE:</b>	549-220

### PLICORD BLAST LOADING HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20505359	1½	38	1.62	41.3	300	2.07	0.91	1.35	122
20522070	2	50	2.74	69.6	300	2.07	1.13	1.69	122

## HD AIR/WATER MINING



### Product Specifications

- APPLICATION:** A versatile heavy duty air/water hose for use in mining, construction, quarries and various industrial applications.
- CONSTRUCTION TUBE:** Black synthetic rubber
- COVER:** Black synthetic rubber
- REINFORCEMENT:** 2 spiral plies of synthetic fabric
- TEMPERATURE:** -32°C to 88°C
- BRANDING:** Continuous blue spiral brand "Goodyear® HD Air/Water 300 psi WP"
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 549-890

### HD AIR/WATER MINING

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20149902	½	12	0.87	22.2	300	2.07	0.22	0.33	20
20149903	¾	19	1.20	30.7	300	2.07	0.40	0.60	20
20149904	1	25	1.48	37.8	300	2.07	0.54	0.81	20
20149905	1¼	32	1.72	43.8	300	2.07	0.62	0.92	20
20149906	1½	38	2.00	50.8	300	2.07	0.80	1.19	20
20149907	2	50	2.57	65.4	300	2.07	0.93	1.38	20
20149908	2½	63	2.99	76.1	300	2.07	1.16	1.73	20
20149909	3	75	3.55	90.2	300	2.07	1.57	2.34	20

## V117 FRAS AIR/WATER


 VEYANCE™ V117 AIR/WATER FRAS AS2660 CLASS

## Product Specifications

- APPLICATION:** Designed for air, water and stone dust applications in underground mines. Meets or exceeds the requirements of AS2660 Class A (Lloyds approved).
- CONSTRUCTION TUBE:** NR / SBR Blended, anti-static
- COVER:** NBR / EPDM Blended, Fire Resistant & Anti-static
- REINFORCEMENT:** Synthetic fabric plies
- TEMPERATURE:** -20°C to 70°C
- BRANDING:** Example: Veyance V117 Air/Water Fras AS2660 Class A WP 17.5 BAR
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

## V117 FRAS AIR/WATER

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20705068	1/2	12	0.90	23	255	1.75	0.27	0.40	20
20705069	3/4	19	1.14	29	255	1.75	0.36	0.54	20
20705210	1	25	1.53	39	255	1.75	0.58	0.86	20
20705211	1¼	32	1.81	46	255	1.75	0.78	1.16	20
20705212	1½	38	2.08	53	255	1.75	0.93	1.38	20
20705213	2	50	2.63	67	255	1.75	1.27	1.89	20
20705214	2½	63	3.14	80	255	1.75	1.58	2.36	20
20705215	3	75	3.66	93	255	1.75	2.01	3.00	20
20705216	4	100	4.80	122	255	1.75	2.97	4.43	20

## PLICORD® SLURRY BLAST/DEWATERING



### Product Specifications

- APPLICATION:** Designed for cleaning and removing water from blast holes, prior to loading with explosives.
- CONSTRUCTION TUBE:** Black Conductive Nitrile
- COVER:** Black Conductive Nitrile
- REINFORCEMENT:** 2, 4 fabric plies and twin wire helix with boot straps
- TEMPERATURE:** -32°C to 93°C
- BRANDING:** Example “Goodyear®, Blast Hole, Slurry and De-Watering hose 250psi”
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 549-859

### PLICORD® SLURRY BLAST/DEWATERING

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20184245	2½	63	3.31	84.14	250	1.72	2.16	3.22	122
20175131	3	75	3.73	94.85	250	1.72	2.59	3.86	90

## V801 MUFF COUPLING HOSE



### Product Specifications

- APPLICATION:** An abrasive slurry hose to be used in conjunction with split muff couplings (also available). The hose has the high strength needed to handle pressure or suction service in the transfer of dry bulk, slurry, salt, cement, fertilisers and a limited number of oil based products.
- CONSTRUCTION TUBE:** SBR / NBR Blended
- COVER:** Black NR / EPDM Blended; wrapped finish
- REINFORCEMENT:** Synthetic fabric plies (2) with wire helix
- TEMPERATURE:** -20°C to 70°C
- BRANDING:** Example: Veyance V801 Muff Coupling Hose WP 100PSI
- COUPLINGS:** Standard aluminium muff couplings (other materials available on special order) Table D as standard; other tables available on request
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### V801 MUFF COUPLING HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572411	2	50	1.96	50	100	0.69	3.31	4.93	30
20572412	3	75	2.95	75	100	0.69	4.06	6.06	30
20572405	4	100	5.03	128	100	0.69	5.00	7.45	30
20572406	5	125	6.18	157	100	0.69	6.54	9.75	30
20572407	6	150	7.28	185	100	0.69	8.01	11.94	30
20572408	8	200	9.25	235	100	0.69	12.18	18.17	10
20572409	10	250	11.29	287	100	0.69	16.52	24.63	10
20572410	12	300	13.54	344	100	0.69	22.39	33.39	10

## ALUMINIUM MUFF COUPLINGS



### Product Specifications

**APPLICATION:** Split Muff Couplings to suit V801 Muff Coupling Hose

**MATERIAL:** High strength alloy – standard Aluminium (other materials available on request)

**DESIGN:** Full integrated sleeve with standard Table D flanges. Sleeve bore is specifically roughened to give exceptional grip on the hose. This technique avoids the need for rings, ridges or spikes in the bore of the coupling, which can depress the hose causing high wear on the inner tube and premature failing at the hose end. Can also be drilled to other tables. Maximum working pressure 100psi (0.69 Mpa)

### ALUMINIUM MUFF COUPLINGS

PRODUCT NO.	HOSE SIZE		FLANGE			BOLTS		APPROX WEIGHT 2 HALVES, BOLTS KG.
	in.	mm.	NO. OF HOLES in.	BOLT SIZE mm.	P.C.D mm.	NUMBER	BOLT SIZE mm.	
20572195	2	50	4	M16 x 70	114	4	M12 x 70	2.9
20572196	3	75	4	M16 x 70	146	4	M12 x 70	3.6
20572197	4	100	8	M16 x 70	178	6	M12 x 70	4.5
20572198	5	125	8	M16 x 70	210	6	M12 x 70	5.9
20572199	6	150	8	M16 x 70	235	6	M12 x 70	6.8
20572200	8	200	8	M16 x 80	292	8	M16 x 80	10.8
20572201	10	250	8	M20 x 80	356	8	M20 x 100	16.6
20572202	12	300	12	M20 x 80	406	8	M20 x 100	21.2





**13.00**

**PETROLEUM  
AIR CRAFT FUELING**



FLAMMABLE

Fuel Services

JET A

FLAMMABLE

## JET RANGER™



### Product Specifications

**APPLICATION:** Used in the fueling and defueling\* of commercial and private aircraft. Resistant to jet fuel and higher aromatic aviation gasolines. Also for use on hydrant service. Meets both API 1529-6th edition, 2005 and European Standard BS EN 1361; 2004. Meets AS2683 - 2000, Type 2, Grade 2, Kind 2&3. Approved for use at Mobil/Exxon Aviation, Shell Aviation Ltd. and BP Ltd. (Relevant approval documents can be obtained from the issuing company).

**CONSTRUCTION TUBE:** Black Nitrile synthetic rubber

**COVER:** Black Wingprene® (ORS) static dissipating/static conductive synthetic rubber (wrapped finish)

**REINFORCEMENT:** Spiral-plied (4) synthetic fabric and one nylon breaker

**TEMPERATURE:** -37°C to 93°C

**BRANDING (SPIRAL):** Example: Goodyear® Jet Ranger™ EN 1361:2004/C/OMEGA, NFPA 407 API/IP 1529/2005 Type C, Grade 2, 2 1/2", 2000 Kpa/20 bars/300 psi MAX WP

**COUPLINGS:** Roman Seliger Aviation Fittings (Nickel Plated Brass) available

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**ORDER CODES:** (1" to 3") 543-742  
(4") 541-742

### JET RANGER™

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20018236	1	25	1.57	40.0	300	2.07	0.57	0.85	30.5
20018237	1	25	1.57	40.0	300	2.07	0.57	0.85	61
20031443	1¼	32	1.89	48.0	300	2.07	0.74	1.11	30.5
20018241	1¼	32	1.89	48.0	300	2.07	0.74	1.11	61
20018250	1½	38	2.06	52.3	300	2.07	0.83	1.25	30.5
20018252	1½	38	2.06	52.3	300	2.07	0.83	1.25	61
20046710	1 <sup>31</sup> / <sub>32</sub>	50	2.57	65.3	300	2.07	1.14	1.70	30.5
20018261	1 <sup>31</sup> / <sub>32</sub>	50	2.57	65.3	300	2.07	1.14	1.70	61
20018270	2½	63	3.16	80.3	300	2.07	1.53	2.28	61
N/S	3	75	3.64	92.5	300	2.07	1.79	2.66	-
N/S	4	100	5.00	127.0	300	2.07	3.70	5.51	-

Note: Bulk hose is factory hydrostatic tested to 600 psi.

\*Gravity defueling only.

## JET RANGER™ HOSE FITTINGS

MANUFACTURED BY ROMAN SELIGER



### Product Specifications

**APPLICATION:** Approved fittings for Jet Ranger™ hose. Nickel plated brass, BSP thread.

#### JET RANGER™ HOSE FITTINGS (MALE THREADS)

PRODUCT NO.	ID		MAX. WP		UOM
	in.	mm.	psi	Mpa	ea.
20572161	1	25	1500	10.3	1
20572164	1¼	32	1500	10.3	1
20572166	1½	38	1500	10.3	1
20572168	2	50	1500	10.3	1
20572170	2½	63	1500	10.3	1
20572171	3	75	1500	10.3	1



#### JET RANGER™ HOSE FITTINGS (FEMALE THREADS)

PRODUCT NO.	ID		MAX. WP		UOM
	in.	mm.	psi	Mpa	ea.
20572149	1	25	1500	10.3	1
20572150	1¼	32	1500	10.3	1
20572152	1½	38	1500	10.3	1
20572154	2	50	1500	10.3	1
20572156	2½	63	1500	10.3	1
20572158	3	75	1500	10.3	1



#### JET RANGER™ HOSE FITTINGS (CLAMPS)

PRODUCT NO.	ID		MAX. WP		UOM
	in.	mm.	psi	Mpa	ea.
20572143	1	25	1500	10.3	1
20572144	1¼	32	1500	10.3	1
20572145	1½	38	1500	10.3	1
20572146	2	50	1500	10.3	1
20572147	2½	63	1500	10.3	1
20572148	3	75	1500	10.3	1





**14.00**

**PETROLEUM  
DISPENSING**



## DEF DISPENSING HOSE



### Product Specifications

**APPLICATION:** Diesel Exhaust Fluid (DEF: aqueous 32.5% nitrogen solution of high-purity urea in deionized water) is a key component of selective catalytic reduction (SCR) systems, which help diesel vehicles meet stringent emission regulations effective January 1, 2010. DEF is a liquid reducing agent that reacts with engine exhaust in the presence of a catalyst to convert smog-forming nitrogen oxides (NOx) into harmless nitrogen and water vapor.

**Goodyear® Engineered Products DEF Dispensing Hose** is specifically designed to convey the high-purity, aqueous urea solution DEF. Hose tube compound is specially formulated with low extraction EPDM and peroxide cured to provide superior extraction levels to significantly reduce contamination. Flexible softwall construction provides superior handling in standard dispensing and reeling applications. Static wire available for installation in Class I, Division 1 areas.

**CONSTRUCTION TUBE:** Specially formulated low-extraction EPDM, peroxide cured

**COVER:** Specially formulated EPDM

**REINFORCEMENT:** Polyester braid

**TEMPERATURE:** -40°C to 125°C

**PACKAGING:** Bulk, coupled assemblies (NPT and BSPP fittings available)

**BRANDING:** Example: Goodyear® DEF Dispensing Hose 3/4" (19.1mm)

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**ORDER CODES:** 532-027

### DEF DISPENSING HOSE

FEATURES	BENEFITS
Specially formulated low extraction EPDM compound for tube peroxide cured	Provides superior extraction levels to significantly reduce contamination that can clog an SCR system and stop a truck
Enhanced manufacturing practices	Significantly reduce contamination that can clog an SCR system and stop a truck
Premium braided construction	Reduced volumetric expansion to meet Weights and Measures system criteria
Static wire	Requirement for installations in Class I, Division 1 areas as outlined in NFPA 70
Meets ISO 22241 standard	Ensures desirable characteristics of AUS 32 (DEF) are met, such as quality, safety, reliability and contamination

### DEF DISPENSING HOSE

PRODUCT NO.	ID		NOM. OD		BURST		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	bar	lb./ft.	kg./m.	m.
20528917	3/4	19	1.13	28.8	1211	83.5	0.30	0.457	152.4

## FLEXSTEEL PETROL AS2683



### Product Specifications

**APPLICATION:** Flexsteel Petrol Pump hose is a premium hardwall hose which offers the ultimate in kink resistance, low volumetric expansion, service life and reliability. Meeting the performance criteria of AS2683-1989 Type 4, Grade 2, Kind 1 & 2 and BS3395-1989 Type 3. Its' single braid of high tensile wire reinforcing, coupled with Goodyear®'s specially developed compounds (intrinsically conducting), make this the safest and most durable hose available for this application.

**CONSTRUCTION TUBE:** Black Chemigum® (Nitrile)

**COVER:** Black Chemivic® (Nitrile blend)

**REINFORCEMENT:** Single braided high tensile wire

**TEMPERATURE:** -29°C to 82°C

**BRANDING:** Continuous brand example "Goodyear® 5/8" Flexsteel Petrol pump – HW AS2683- 1989 Type 4, Grade 2, Kind 1 & 2 250 Kpa W.P."

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 532-357

### FLEXSTEEL PETROL (AS2683)

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20022226	5/8	16	1.03	26.14	36	0.25	0.43	0.64	145 - 190
20022229	3/4	19	1.25	31.75	36	0.25	0.46	0.68	145 - 190
20022230	1	25	1.38	35.28	36	0.25	0.52	0.78	100 - 160

\* For applications other than petrol dispensing, hose is capable of a working pressure of 250psi with a 4:1 safety factor

## TEXTILE PETROL AS2683



### Product Specifications

**APPLICATION:** Textile Petrol Pump hose is a softwall hose which offers excellent kink resistance in petrol dispensing applications. Meeting the performance criteria of AS2683- 1989 Type 4, Grade 2, Kind 1 & 2. Its single braid of high tensile fabric reinforcing, coupled with Goodyear®'s specially developed compounds (intrinsicly conducting), make this the safest and most durable hose available for this application.

**CONSTRUCTION TUBE:** Black Chemigum® (Nitrile)

**COVER:** Black Chemivic® (Nitrile blend)

**REINFORCEMENT:** Single braided high tensile synthetic fabric

**TEMPERATURE:** -29°C to 82°C

**BRANDING:** Continuous brand example " Goodyear® 5/8" TextilePetrol pump – AS2683-1989 Type 4, Grade 2, Kind 1 & 2, 250 Kpa W.P."

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 532-387

### FLEXSTEEL PETROL (AS2683)

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20022586	5/8	16	1.00	25.4	36	0.25	0.34	0.51	145 - 190
N/S	3/4	19	1.19	30.23	36	0.25	0.45	0.67	145 - 190
20138434	1	25	1.38	38.1	36	0.25	0.61	0.91	100 - 160

\* For applications other than petrol dispensing, hose is capable of a working pressure of 250psi with a 4:1 safety factor





**15.00**

**PETROLEUM  
DOCK**



## FLEXDOCK® 225



### Product Specifications

- APPLICATION:** Built with a corrugated cover to provide flexibility in petroleum transfer service. A variety of tube compounds are available to tailor the chemical and hydrocarbon resistance of the hose to the type of material handled.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber for up to 50% aromatics. Also available with a Flosyn® tube for up to 100% aromatics.
- COVER:** Black Wingprene® synthetic cover, corrugated, wrapped finish
- REINFORCEMENT:** Spiral-plied heavy-duty synthetic fabric with double wire helix
- TEMPERATURE:** -32°C to 93°C
- PACKAGING:** Chloroplast heavy-duty packaging
- BRANDING (SPIRAL):** Example: Goodyear® Flexdock® 225 psi WP Nitrile Oil Service
- COUPLINGS:** Coupled with standard built-in steel nipple/150#RFSO flanges. Available in other bolt hole patterns, materials and floating flanges on request. Swage nipples are offered up to 10". Hose assembly is electrically continuous unless otherwise specified by customer.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- ORDER CODES:** 541-532 (Nitrile tube)  
541-534 (Flosyn® tube)

### FLEXDOCK® 225

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
3	76.2	3.89	98.8	225	1.55	11	279	29	737	3.28	4.88	Custom
4	101.6	5.29	134.4	228	1.55	15	381	29	737	6.30	9.38	Custom
6	152.4	7.34	186.4	225	1.55	22	559	29	737	9.50	14.14	Custom
8	203.2	9.43	239.5	255	1.55	30	762	29	737	13.81	20.55	Custom
10	254.0	11.63	295.4	225	1.55	40	1016	29	737	20.49	30.49	Custom
12	304.8	13.72	348.5	225	1.55	60	1524	29	737	25.13	37.40	Custom

Note: Factory coupled hose manufactured according to the code of Federal Regulations standard 33 CFR 154.500 and 33 CFR 156.170.

## FLEXDOCK® 300



### Product Specifications

- APPLICATION:** Built with a corrugated cover to provide flexibility in petroleum transfer service. A variety of tube compounds are available to tailor the chemical and hydrocarbon resistance of the hose to the type of material handled.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber for up to 50% aromatics. Also available with a Flosyn® tube for up to 100% aromatics.
- COVER:** Black Wingprene® synthetic cover, corrugated, wrapped finish
- REINFORCEMENT:** Heavy-duty synthetic fabric plies with double wire helix
- TEMPERATURE:** -32°C to 93°C
- PACKAGING:** Chloroplast heavy-duty packaging
- BRANDING (SPIRAL):** Example: Goodyear® Flexdock® 300 psi WP Nitrile Oil Service
- COUPLINGS:** Coupled with standard built-in steel nipple/150#RFSO flanges. Available in other bolt hole patterns, materials and floating flanges on request. Swage nipples are offered up to 10". Hose assembly is electrically continuous unless otherwise specified by customer.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- ORDER CODES:** 541-533 (Nitrile Tube)  
541-535 (Flosyn® tube)

### FLEXDOCK® 300

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
3	76.2	4.06	103.7	300	2.07	14	356	29	737	3.76	5.60	Custom
4	101.6	5.29	134.4	300	2.07	19	483	29	737	6.30	9.38	Custom
6	152.4	7.35	186.7	300	2.07	28	711	29	737	9.64	14.35	Custom
8	203.2	9.63	244.6	300	2.07	38	965	29	737	15.56	23.16	Custom
10	254.0	11.51	292.4	300	2.07	48	1219	29	737	19.73	29.36	Custom
12	305.5	13.94	353.9	300	2.07	58	1473	29	737	28.89	42.98	Custom

Note: Factory coupled hose manufactured according to the code of Federal Regulations standard 33 CFR 154.500 and 33 CFR 156.170.

## VAPOR RECOVERY DOCK



### Product Specifications

- APPLICATION:** For use in the recovery of petroleum vapors during the transfer of petroleum-based products between docks and tankers or barges.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber for up to 50% aromatics. Also available with a Flosyn® tube for up to 100% aromatics.
- COVER:** Black Chemivic™ synthetic rubber (corrugated)
- REINFORCEMENT:** Synthetic fabric plies plus two (2) wire helix
- TEMPERATURE:** -32°C to 93°C
- PACKAGING:** Chloroplast heavy-duty packaging
- BRANDING (SPIRAL):** Example: Goodyear® Vapor Recovery 25 psi MWP
- COUPLINGS:** Built-in nipples (or swaged fittings up to 10" ID) fitted with 150# flange with extra 5/8" diameter hole located midway between flange bolt hole as per Coast Guard requirements.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- ORDER CODES:** 541-090 (Nitrile Tube)  
541-643 (Flosyn® Tube)

### VAPOR RECOVERY DOCK

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
6	152.4	6.86	174.2	25	0.17	22	559	29	737	5.70	8.48	Custom
8	203.2	8.89	225.8	25	0.17	30	762	29	737	8.26	12.29	Custom
10	254.0	10.97	278.6	25	0.17	40	1016	29	737	12.63	18.80	Custom
12	304.8	13.00	330.2	25	0.17	60	1524	29	737	15.07	22.43	Custom

Note: Factory coupled hose manufactured according to the code of Federal Regulations standard 33 CFR 154.500 and 33 CFR 156.170.

## HOT TAR & ASPHALT BS EN 13482



### Product Specifications

- APPLICATION:** Designed for petroleum-based products up to 350°F between docks and tankers or barges under heavy-duty conditions.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber, flat steel wire helix supporting the tube
- COVER:** Wingprene® synthetic rubber
- REINFORCEMENT:** Spiral-plyed synthetic fabric with wire helix
- TEMPERATURE:** -32°C to 177°C
- PACKAGING:** Custom lengths available, contact customer service.
- BRANDING:** Example: Goodyear® RB Dock hot asphalt, 350°F, 225 psi max
- COUPLINGS:** Coupled with galvanized built-in steel nipple/150#RFSO flanges. Available in other bolt hole patterns, materials and floating flanges on request. Smooth bore assembly is electrically continuous unless otherwise specified by customer. Rough bore assembly is offered as electrically continuous only.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### SMOOTH BORE

ORDER CODES: 541-606

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
4	101.6	5.28	134.1	225	1.55	36	914	29	737	6.48	9.64	Custom
6	152.4	7.72	196.1	225	1.55	48	1219	29	737	13.83	20.58	Custom
8	203.2	9.80	248.9	225	1.55	60	1524	29	737	19.11	28.44	Custom
10	254.0	11.80	299.7	225	1.55	80	2032	29	737	23.20	34.52	Custom

### ROUGH BORE

ORDER CODES: 541-582

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
6	152.4	8.19	208.0	225	1.55	36	914	29	737	16.19	24.09	Custom
8	203.2	10.25	260.4	225	1.55	48	1219	29	737	22.39	33.32	Custom
10	254.0	12.31	312.7	225	1.55	60	1524	29	737	29.09	43.29	Custom

## NITRILE OIL SERVICE DOCK HOSE EN1765-S15



### Product Specifications

- APPLICATION:** Designed for the transfer of petroleum base product with up to 50% Aromatic content between docks and ships, all sizes rated at full vacuum.
- CONSTRUCTION TUBE:** High Quality Black Nitrile.
- COVER:** Black Chemivic
- REINFORCEMENT:** Plies of synthetic fabric with spiral helix wire
- TEMPERATURE:** -32°C to 93°C
- PACKAGING:** Chloroplast heavy duty packaging
- BRANDING:** As per EN1765 and Coast Guard on Stainless steel name plate tack welded to steel nipple at both ends
- RECOMMENDED FITTINGS** Built in coupling with flange. Unless specified, flanges are supplied with 150#RFS0 ANSI-B16.5/ASTM A105
- TESTING:** All hose tested to EN 1765-515 (old BS1435), and meet the requirements of coast guard federal regulations, title 33, chapter 1, subject C, clause 154.5
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### NITRILE OIL SERVICE DOCK HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	lb./ft.	kg./m.	m.
541-684-107	3	76.2	4.10	104.0	225	1.55	18	457.2	3.7	5.52	custom
541-684-123	4	101.6	5.39	136.9	225	1.55	24	609.6	6.5	9.70	custom
541-684-155	6	152.4	7.48	190.1	225	1.55	33	838.2	11.0	16.41	custom
541-684-187	8	203.2	9.63	244.6	225	1.55	43	1092.2	16.0	23.86	custom
541-684-219	10	254.0	11.80	299.6	225	1.55	53	1346.2	21.5	32.06	custom
541-684-251	12	304.8	13.82	351.0	225	1.55	63	1600.2	25.4	37.88	custom

\*Custom lengths available  
Hose safety factor of 4:1





**16.00**

**PETROLEUM  
TRANSFER**



## PLICORD® FUEL DISCHARGE



### Product Specifications

- APPLICATION:** Plicord® Fuel Discharge hose is for the discharge of gasoline, oil, ethanol blends and other petroleum based products in tank and industrial applications.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber RMA Class A (High Oil Resistance), plus antistatic wires
- COVER:** Black Chemivic™ synthetic rubber RMA Class B (Medium-High Oil Resistance)
- REINFORCEMENT:** Spiral-plyed synthetic fabric (2" - 4": 2 ply; 6": 4 ply), plus grounding wires
- TEMPERATURE:** -37°C to 82°C
- BRANDING (SPIRAL):** Example: Goodyear® Plicord® Fuel Discharge
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock Cam & Groove Fittings with this product. See the Coupling Systems information pages at the back of the catalogue
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 543-331

### PLICORD® FUEL DISCHARGE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20032339	3/4	19	1.21	30.7	150	1.03	0.42	0.63	30.48
20032357	1	25	1.46	37.1	150	1.03	0.52	0.77	30.48
20050546	1¼	32	1.72	43.7	150	1.03	0.63	0.94	30.48
20118090	1¼	32	1.72	43.7	150	1.03	0.63	0.94	60.96
20017756	1½	38	1.95	49.5	150	1.03	0.73	1.09	30.48
20240408	1½	38	1.95	49.5	150	1.03	0.73	1.09	60.96
20050565	1¾	44	2.22	56.4	150	1.03	0.83	1.24	30.48
20017758	2	50	2.49	63.3	150	1.03	0.98	1.46	30.48
20032358	2½	63	2.98	75.7	150	1.03	1.19	1.77	30.48
20017764	3	75	3.50	88.9	150	1.03	1.45	2.16	30.48
20050547	3½	88	4.04	102.6	150	1.03	1.70	2.53	30.48
20017767	4	100	4.52	114.8	150	1.03	1.91	2.84	30.48

# PLICORD® EXTREMEFLEX™ PETROLEUM TRANSFER



## Product Specifications

- APPLICATION:** An extremely flexible and lightweight drop hose for use in tank truck and in-plant operation to transfer diesel, ethanol, gasoline, oil and petroleum base products up to 60% aromatic content. Corrugated construction for lower drag coefficient and superior abrasion resistance.
- CONSTRUCTION TUBE:** Black Nitrile synthetic rubber (Class A oil resistance)
- COVER:** Black Chemivic™ synthetic (corrugated)
- REINFORCEMENT:** Spiral plied synthetic fabric with wire helix
- TEMPERATURE:** -40°C to 93°C
- BRANDING (SPIRAL):** Example: Plicord® ExtremeFlex™ Petroleum Transfer
- COUPLINGS:** Use Goodyear® Engineered Products Insta-Lock™ Cam & Groove Fittings
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 543-216

## PLICORD® EXTREMEFLEX™ PETROLEUM TRANSFER

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20459042	3/4	19	1.20	30.5	250	1.72	0.75	19.05	29	737	0.44	0.62	30.48
20459043	1	25	1.45	36.8	250	1.72	1	25.40	29	737	0.55	0.81	30.48
20472432	1¼	32	1.67	42.5	250	1.72	1.25	32.00	29	737	0.59	0.88	30.48
20459044	1½	38	1.91	48.5	250	1.72	1.5	37.10	29	737	0.73	1.08	30.48
20474865	1½	38	1.91	48.5	250	1.72	1.5	37.10	29	737	0.73	1.08	60.96
20635998	1¾	44	2.20	55.8	250	1.72	1.73	44.00	29	737	0.86	1.28	121.92
20459045	2	50	2.43	61.8	250	1.72	2	50.80	29	737	0.96	1.46	30.48
20474866	2	50	2.43	61.8	250	1.72	2	50.80	29	737	0.96	1.46	60.96
20459046	2½	63	3.00	76.1	200	1.37	2.5	63.50	29	737	1.41	2.10	30.48
20459047	3	75	3.50	88.8	200	1.37	3	76.20	29	737	1.69	2.51	30.48
20607374	3½	88	4.08	103.6	150	1.03	3.43	88.00	29	737	2.15	3.21	30.48
20459048	4	100	4.56	115.7	150	1.03	4	101.6	29	737	2.42	3.61	30.48
20546328	6	150	6.62	168.1	150	1.03	6	150.0	29	737	4.43	6.61	30.48



## PYROFLEX® HOT TAR & ASPHALT II



### Product Specifications

- APPLICATION:** For the transfer of high temperature petroleum-based materials such as tar, asphalt and hot oils. It is suitable for suction and discharge service on tank trucks, tank cars or at bulk stations. Heat resistant tube and Flexten reinforcement. (Hot oils only rated to 200°F)
- CONSTRUCTION**
- TUBE:** Black Nitrile (special heat resistant) synthetic rubber RMA Class A (High Oil Resistance)
- COVER:** Black Wingprene® synthetic rubber RMA Class A (High Oil Resistance) with spiral red stripe
- REINFORCEMENT:** Spiral-ply Flexten® with wire helix
- TEMPERATURE:** -32°C to 177°C
- PACKAGING:** 100' lengths, coiled and polywrapped
- BRANDING (SPIRAL):** Example: Goodyear® Pyroflex® Hot Tar and Asphalt II 150 psi
- COUPLINGS:** Contact fitting manufacturer for proper fitting recommendation and coupling procedure.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- ORDER CODES:** 543-118

### PYROFLEX® HOT TAR & ASPHALT II

ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
1½	38.1	2.08	52.8	150	1.03	4	102	29	737	1.04	1.55	30.48
2	50.8	2.60	66.0	150	1.03	5	127	29	737	1.33	1.98	30.48
2½	63.5	3.09	78.6	150	1.03	6	152	29	737	1.67	2.49	30.48
3	76.2	3.65	92.8	150	1.03	7	178	29	737	2.23	3.32	30.48
4	101.6	4.68	118.8	150	1.03	10	254	29	737	2.91	4.34	30.48

## PYROFLEX® HOT TAR WAND



### Product Specifications

- APPLICATION:** A high quality wand hose used in asphalt crack filling applicator and dispensing service.
- CONSTRUCTION TUBE:** Black Nitrile (special heat resistance)
- COVER:** Black Wingprene® (wrapped finish) flame-retardant
- REINFORCEMENT:** Spiral-plyed (2) steel wire
- TEMPERATURE:** -32°C to 177°C
- BRANDING (SPIRAL):** Example: Goodyear® Pyroflex® Hot Tar Wand Hose
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 543-632

### PYROFLEX® HOT TAR WAND

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20017982	3/4	19	1.33	33.8	300	2.07	0.64	0.95	30.48
20017983	3/4	19	1.33	33.8	300	2.07	0.64	0.95	121.92
20017987	1	25	1.61	40.9	300	2.07	0.84	1.25	30.48

## V401 PETROL & OIL DELIVERY HOSE



### Product Specifications

- APPLICATION:** General purpose hose for use in the discharge of gasoline, oil and other petroleum based products.
- CONSTRUCTION TUBE:** NBR (Oil resistant)
- COVER:** Black NBR (Oil resistant); wrapped finish
- REINFORCEMENT:** Synthetic fabric plies (2)
- TEMPERATURE:** -20°C to 70°C
- BRANDING:** Veyance V401 Oil Delivery WP 150psi
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### V401 PETROL & OIL DELIVERY HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572390	3/4	19	1.14	29	150	1.03	0.38	0.56	30
20574522	3/4	19	1.14	29	150	1.03	0.38	0.56	60
20572391	1	25	1.50	38	150	1.03	0.62	0.93	30
20574523	1	25	1.50	38	150	1.03	0.62	0.93	60
20572392	1¼	32	1.73	44	150	1.03	0.68	1.02	30
20574524	1¼	32	1.73	44	150	1.03	0.68	1.02	60
20614433	1¾	35	1.85	47	150	1.03	0.74	1.10	30
20572393	1½	38	2.01	51	150	1.03	0.85	1.27	30
20574525	1½	38	2.01	51	150	1.03	0.85	1.27	60
20614434	1¾	44	2.20	56	150	1.03	0.86	1.29	30
20572394	2	50	2.40	61	150	1.03	0.88	1.31	30
20574526	2	50	2.40	61	150	1.03	0.88	1.31	60
20572395	2½	63	2.91	74	150	1.03	1.19	1.77	30
20572396	3	75	3.46	88	150	1.03	1.41	2.11	30
20574527	3	75	3.46	88	150	1.03	1.41	2.11	60
20572389	4	100	4.45	113	150	1.03	1.86	2.77	30

## V404 OIL SUCTION & DISCHARGE HOSE



### Product Specifications

- APPLICATION:** General purpose hose used to transfer gasoline, oil and other petroleum based products. Hose is designed for pressure, gravity flow or suction service.
- CONSTRUCTION TUBE:** NBR (Oil resistant)
- COVER:** Black NBR (Oil resistant); wrapped finish
- REINFORCEMENT:** Synthetic fabric plies (2) with wire helix
- TEMPERATURE:** -20°C to 70°C
- BRANDING:** Example: "Veyance V404 Oil Suction and Delivery WP150psi"
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### V404 OIL SUCTION & DISCHARGE HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572398	3/4	19	1.14	29	150	1.03	0.40	0.59	30
20572399	1	25	1.42	36	150	1.03	0.56	0.83	30
20574515	1	25	1.42	36	150	1.03	0.56	0.83	60
20572400	1¼	32	1.69	43	150	1.03	0.72	1.07	30
20574516	1¼	32	1.69	43	150	1.03	0.72	1.07	60
20572401	1½	38	1.93	49	150	1.03	0.81	1.21	30
20574517	1½	38	1.93	49	150	1.03	0.81	1.21	60
20572402	2	50	2.48	63	150	1.03	1.18	1.76	30
20574518	2	50	2.48	63	150	1.03	1.18	1.76	60
20572403	2½	63	3.03	77	150	1.03	1.59	2.37	30
20574520	2½	63	3.03	77	150	1.03	1.59	2.37	60
20572404	3	75	3.50	89	150	1.03	1.90	2.83	30
20574521	3	75	3.50	89	150	1.03	1.90	2.83	60
20572397	4	100	4.65	118	150	1.03	3.13	4.67	30



**17.00**  
**SPRAY**



25

## MINE SPRAY



### Product Specifications

- APPLICATION:** For general underground water spray service in dust control applications. It is also used on continuous mining machinery at the headface and on other mechanical mining machines.
- CONSTRUCTION TUBE:** Nitrile synthetic rubber RMA Class B (medium oil resistance)
- COVER:** Yellow Chemivic™ synthetic rubber RMA Class B (medium oil resistance) (Meets flame test requirements of MSHA Schedule 26-Section 18.65), smooth finish
- REINFORCEMENT:** Braided (1) steel wire
- TEMPERATURE:** -18°C to 93°C
- BRANDING:** Example: Goodyear® 1" Mine Spray 1000 psi WP, Fire-Resistant, USMSHA IC-11/9. Made in USA
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 539-421

### MINE SPRAY

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20024121	3/4	19	1.14	29.0	1000	6.9	0.44	0.65	30.48
20024129	1	25	1.45	36.8	1000	6.9	0.63	0.94	30.48
20024138	1¼	32	1.75	44.5	1000	6.9	0.86	1.28	30.48
20024143	1½	38	1.98	50.3	1000	6.9	1.08	1.61	30.48
20024154	2	51	2.55	64.8	1000	6.9	1.57	2.34	30.48

## NR SPRAY



## Product Specifications

- APPLICATION:** NR Spray is a premium-quality, all-purpose hose for handling a variety of applications such as paint spray or agricultural spray. Will handle spraying paints, automotive finish paints, lacquers, thinners, turpentine, air, oil and a large variety of solvents and chemicals.
- CONSTRUCTION TUBE:** Nylon, silicone-free
- COVER:** Black synthetic rubber, RMA Class B (Medium Oil Resistance)
- REINFORCEMENT:** Braided synthetic yarn (1/4" and 3/8"—1 braid) (1/2", 3/4" and 1"—2 braid)
- TEMPERATURE:** -18°C to 88°C
- BRANDING:** Example: Goodyear® 1/4" IBD NR Spray. Made in USA
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 536-290

## NR SPRAY

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20022944	1/4	6	0.49	12.4	750	5.17	0.08	0.12	152.4
20022951	3/8	10	0.70	17.8	750	5.17	0.15	0.22	152.4
20022962	1/2	12	0.87	22.1	750	5.17	0.22	0.33	152.4
20022969	3/4	19	1.19	30.2	750	5.17	0.36	0.54	152.4
20022976	1	25	1.51	38.4	750	5.17	0.54	0.80	137.2*

\*Will cut; 20mtr increments

## PLIOVIC® AG SPRAY



### Product Specifications

- APPLICATION:** A lightweight, economical high-pressure hose for carrying air, water and many spray solutions in agricultural applications: including Xylene up to 10% concentration. Safety factor 3:1.
- CONSTRUCTION TUBE:** Pliovic® RMA Class B (Medium Oil Resistance)
- COVER:** Orange or green Pliovic® (ribbed finish)
- REINFORCEMENT:** Spiral synthetic yarn
- TEMPERATURE:** -18°C to 70°C
- PACKAGING:** 300' length, coiled and polywrapped
- BRANDING:** Example: Goodyear® Pliovic® 1800 Spray 1/2" (12.7 mm). Made in USA
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### PLIOVIC® 1800 (ORANGE)

ORDER CODES: 540-211

ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
3/8	9.5	0.69	17.5	600	4.14	0.14	0.21	91.5
1/2	12.7	0.78	19.8	600	4.14	0.19	0.28	91.5
3/4	19.1	1.10	27.9	600	4.14	0.28	0.42	91.5

### PLIOVIC® 2400 (GREEN)

ORDER CODES: 540-208

ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
3/8	9.5	0.70	17.8	800	5.52	0.14	0.21	91.5
1/2	12.7	0.85	21.6	800	5.52	0.20	0.30	91.5
3/4	19.1	1.10	27.9	800	5.52	0.28	0.42	91.5





**18.00**  
**STEAM**



## FLEXSTEEL® 250 STEAM



### Product Specifications

- APPLICATION:** For cleaning, heat control, fire prevention, pumping, thawing, blow-out service, steam pumps and hoists in open-end or permanent installation operations. It is used in refineries, shipyards, chemical plants, steel mills, foundries and heavy industrial applications where high strength is required and where severe environmental conditions are encountered.
- CONSTRUCTION TUBE:** Pyrosyn® synthetic rubber
- COVER:** Smooth red Pyrosyn® finish, pin-pricked
- REINFORCEMENT:** Braided steel wire (3/4" and 1" have 2 steel wire braids)
- TEMPERATURE:** -18°C to 232°C
- BRANDING:** Example: Goodyear® Flexsteel® 250 Steam Max WP 250 PSI. Made in USA
- COUPLINGS:** See Goodyear® Engineered Products Hose Assembly Manual for most current crimp solutions
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 539-070 (black)  
539-076 (red)  
539-470 (black wrapped)\*  
539-476 (red wrapped)\*

### FLEXSTEEL® 250 STEAM

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20023457	1/2	12	1.06	26.9	250	1.72	0.45	0.67	60.96
20023468	3/4	19	1.28	32.5	250	1.72	0.56	0.83	60.96
20023481	1	25	1.63	41.4	250	1.72	0.91	1.35	30.48

# CRIMPED STEAM ASSEMBLY



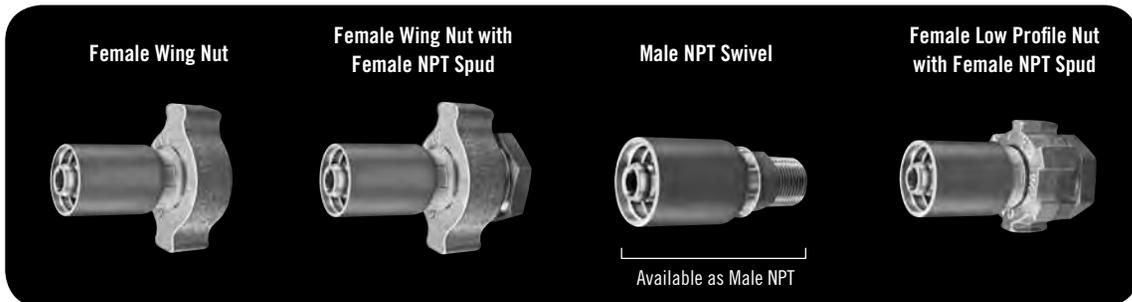
## Product Specifications

**APPLICATION:** Coupling assembly crimps permanently onto hose; forms a tight crimp that reduces leaks and eliminates bulky bolt clamps while reducing potential for damage from snagging on personnel or property.

### RECOMMENDED CRIMP DIAMETERS FOR GOODYEAR® ENGINEERED PRODUCTS BRANDED STEAM HOSE

HOSE DESCRIPTION	HOSE PRODUCT CODE	HOSE ID	FEMALE GROUND JOINT LOW PROFILE UNIT	FEMALE GROUND JOINT WING NUT	MALE NPT	MALE NPT SWIVEL	FEMALE SPUD	CRIMP DIA.	Goodyear® ENGINEERED PRODUCTS PERMA-CRIMP™	
									DIE SET	APPROX. SETTING
Flexsteel® 250 (Black)	539-070-024	3/4"	RGJS-3V	GJS-3V	IMS-3V	IMS-3VSW	GFS-3	1.440"	34	2.6
Flexsteel® 250 (Red)	539-076-024	3/4"	RGJS-3V	GJS-3V	IMS-3V	IMS-3VSW	GFS-3	1.440"	34	2.6
Flexsteel® 250 (Black)	539-070-032	1"	RGJS-4V	GJS-4V	IMS-4V	IMS-4VSW	GFS-3	1.925"	45	3.9
Flexsteel® 250 (Red)	539-076-032	1"	RGN-4	GN-4	IMS-4G*	N/A	GFS-4	1.660"	41	1.16
Flexsteel® 250 (Red Wrapped)	536-476-024	3/4"	RGJS-3V	GJS-3V	IMS-3V	IMS-3VSW	GFS-3	1.440"	34	2.6
Flexsteel® 250 EPDM 20 (Red)	539-486-024	3/4"	RGJS-3V	GJS-3V	IMS-3V	IMS-3VSW	GFS-3	1.420"	34	2.1

\*For the 2-piece skived fitting solution with SCF-4G ferrule, use GJS-4G NC stem for ground joint fittings. Skive length 1.555".



## PLICORD® 250 STEAM



### Product Specifications

- APPLICATION:** A rugged construction used for all-around steam service in chemical plants, refineries, shipyards and demanding industrial service. It is recommended for cleaning, thawing, blowout service, steam pumps, hoists and other applications involving steam.
- CONSTRUCTION**
- TUBE:** Black Versigard® synthetic rubber
- COVER:** Red Versigard® synthetic rubber, also available black cover on request (wrapped impression)
- REINFORCEMENT:** Spiral-plied steel wire
- TEMPERATURE:** -18°C to 208°C
- BRANDING (SPIRAL):** Example: Goodyear® Plicord® Steam 250 psi. Drain after use (yellow brand)
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 549-060 (black)  
549-061 (red)

### PLICORD® 250 STEAM

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20019180	1½	38	2.09	53.1	250	1.72	1.03	1.53	30.48
20019184	2	50	2.78	70.6	250	1.72	1.88	2.80	30.48

\*Other sizes available on request





**19.00**  
**VACUUM**



## SPIRAFLEX® VACUUM



### Product Specifications

- APPLICATION:** Spiraflex® Vacuum hose is for dust collection and exhaust transmission where airborne pollutants, fumes and odors are a major problem.
- CONSTRUCTION TUBE:** White Pliovic® compound
- REINFORCEMENT:** Rigid white high-density Pliovic® helix
- TEMPERATURE:** -18°C to 70°C
- BRANDING:** Not branded
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 586-403

### SPIRAFLEX® VACUUM

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20013089	1	25	1.22	31.0	37	0.26	3	64	29	737	0.13	0.19	30.5
20013090	1¼	32	1.50	38.1	37	0.26	4	84	29	737	0.24	0.36	30.5
20013092	1½	38	1.76	44.7	34	0.23	4	97	29	737	0.29	0.43	30.5
20013094	2	50	2.35	59.7	30	0.21	6	140	29	737	0.45	0.67	30.5
20013095	2½	63	2.87	72.9	30	0.21	7	178	29	737	0.61	0.91	30.5
20013096	3	75	3.42	86.9	30	0.21	8	203	29	737	0.80	1.19	30.5
20013097	4	100	4.53	115.1	27	0.19	14	356	15	381	1.13	1.68	30.5
20013100	6	150	6.59	167.4	20	0.14	25	635	10	254	2.05	3.05	9.15

## ARTRAC®



## Product Specifications

- APPLICATION:** The Artrac® hose is used for a variety of abrasive, material-handling applications to transfer sand, gravel, cement, fly ash, glass, metals, plastic pellets, fertilizers, rock salts and slurries.
- CONSTRUCTION TUBE:** Thermoplastic alloyed blend of polyurethane and PVC (static dissipating/static conductive)
- COVER:** Thermoplastic alloyed blend of nitrile, polyurethane, and PVC (nonconductive)  
(Available with conductive cover—see order code below.)
- REINFORCEMENT:** Rigid high-density PVC helix
- TEMPERATURE:** -40°C to 70°C
- BRANDING:** Not branded
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 586-462  
586-522 (with conductive cover)

## ARTRAC® ABRASIVE MATERIAL HANDLING

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20018954	1¼	19	1.63	41.4	45	0.31	3	76	29	737	0.34	0.51	30.5
20013528	1½	38	1.89	48.0	40	0.28	3	81	29	737	0.40	0.60	30.5
20013529	2	50	2.47	62.7	40	0.28	6	140	29	737	0.67	1.00	30.5
20013531	2½	63	3.05	77.5	35	0.24	6	152	29	737	0.87	1.29	30.5
20013532	3	75	3.69	93.7	30	0.21	8	191	29	737	1.16	1.73	30.5
20013535	4	100	4.81	122.2	30	0.21	11	279	29	737	2.16	3.21	30.5
20013539	5	125	5.78	146.8	30	0.21	10	381	29	737	2.60	3.87	30.5
20013545	6	150	7.08	179.8	25	0.17	20	508	29	737	3.43	5.10	30.5
20013549	8	200	9.22	234.2	20	0.14	30	762	29	737	5.84	8.69	6.1
20250975	8	200	9.22	234.2	20	0.14	30	768	29	737	5.84	8.69	20
20013554	10	254	11.21	284.7	20	0.14	45	1143	29	737	7.96	11.85	6.1



**20.00**

**VEYANCE BRANDED  
PRODUCTS**



## LPG DELIVERY PRO™



### Product Specifications

**APPLICATION:** LPG Delivery Pro™ is for residential and commercial delivery/transfer of liquid propane gas – the only UL listed LPG bobtail transfer assembly in the market. It features premium braided construction (1" ID and larger), excellent cold weather flexibility, a smooth cover for low drag resistance and low tube extraction to reduce contamination.

**Not for LP appliances or other consumer applications.**

**CONSTRUCTION TUBE:** Nitrile

**COVER:** Synthetic rubber

**REINFORCEMENT:** 1/2" and 3/4" Textile spiral  
1" and 2" Textile braid

**TEMPERATURE:** -40°C to 82°C

**PACKAGING:** Available in coupled assemblies only

**BRANDING:** Example: 1" (25.4mm) LPG Delivery Pro™ CGA Type 1 LPG-Hose Issue No. E-8167 350 Psi (2.4 MPa) Max WP. Made in USA

**COUPLINGS:** Factory installed crimped fittings only

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**ORDER CODES:** 532-412

### LPG DELIVERY PRO™

ID		NOM. OD		MAX. WP		WEIGHT	
in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.
1/2	12.7	0.93	23.6	350	2.41	0.28	0.42
3/4	19.1	1.23	31.2	350	2.41	0.46	0.68
1	25.4	1.49	37.8	350	2.41	0.57	0.68
1¼	31.8	1.80	45.7	350	2.41	0.68	1.01
1½	38.1	2.08	52.8	350	2.41	1.10	1.64





**21.00**

**WATER  
DISCHARGE**



## EPFLOW® BLUE LAYFLAT



### Product Specifications

- APPLICATION:** For light-duty water discharge applications in mining, construction, industry, agricultural and marine service.
- CONSTRUCTION TUBE:** Blue PVC compound
- COVER:** Blue PVC compound
- REINFORCEMENT:** Synthetic fabric
- TEMPERATURE:** -23°C to 77°C
- BRANDING:** Example: SF-10 2" USA
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 537-564

### SPIRAFLEX® BLUE LAYFLAT

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20737942	1½	38.1	1.67	42.4	80	0.55	0.18	0.27	100
20737943	2	50.8	2.21	56.1	80	0.55	0.24	0.37	100
20737944	3	76.2	3.20	81.3	80	0.55	0.38	0.56	100
20737945	4	101.6	4.26	108.2	70	0.48	0.53	0.79	100
20737947	6	152.4	6.26	159.0	60	0.41	0.86	1.29	100
20737948	8	203.2	8.32	211.3	35	0.24	1.30	1.93	100

Note: Working pressures are rated at 22.2°C.

## EPFLOW® RED LAYFLAT



### Product Specifications

<b>APPLICATION:</b>	For medium-duty discharge applications in mining, construction, industry, agriculture and marine service. Limited oil and chemical application. Also recommended for sprinkler pivot and water transport
<b>CONSTRUCTION TUBE:</b>	Red PVC compound
<b>COVER:</b>	Red PVC compound
<b>REINFORCEMENT:</b>	Spiral synthetic yarn, one layer longitudinal synthetic yarn
<b>TEMPERATURE:</b>	-23°C to 77°C
<b>BRANDING:</b>	Example: SF-SS 2" USA
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	537-521

### SPIRAFLEX® RED LAYFLAT

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20737949	1½	38.1	1.71	43.4	150	1.03	0.23	0.34	100
20737950	2	50.8	2.24	56.9	150	1.03	0.36	0.54	100
20737951	3	76.2	3.29	83.6	150	1.03	0.65	0.96	100
20737952	4	101.6	4.32	109.7	150	1.03	0.93	1.39	100
20737953	6	152.4	4.32	109.7	150	1.03	1.67	2.49	100

Note: Working pressures are rated at 22.2°C.

## FIRE ENGINE BOOSTER



### Product Specifications

**APPLICATION:** For use in high-pressure fire engine booster service. Also has many applications in other heavy-duty industrial and municipal operations.

**CONSTRUCTION TUBE:** Synthetic rubber

**COVER:** Red synthetic rubber

**REINFORCEMENT:** Braided (2) synthetic yarn

**TEMPERATURE:** -18°C to 82°C

**BRANDING:** Example: Goodyear® 1" Fire Engine Booster. Made in USA

**COUPLINGS:** Barway Couplings

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 536-382

### FIRE ENGINE BOOSTER (HOSE ONLY)

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20023050	1	25	1.53	38.9	800	5.52	0.57	0.85	30.5
20023052	1	25	1.53	38.9	800	5.52	0.57	0.85	45.7*
20023053	1	25	1.53	38.9	800	5.52	0.57	0.85	61*

### FIRE ENGINE BOOSTER (FITTED ASSEMBLIES) M&F BARWAY COUPLINGS

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT (HOSE ONLY)		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20023056	3/4	19	1.25	31.8	800	5.52	0.42	0.62	15.25*
20023057	3/4	19	1.25	31.8	800	5.52	0.42	0.62	30.5*
20023059	3/4	19	1.25	31.8	800	5.52	0.42	0.62	61*
20023068	1	25	1.53	38.9	800	5.52	0.57	0.85	15.25
20023069	1	25	1.53	38.9	800	5.52	0.57	0.85	30.5
20023070	1	25	1.53	38.9	800	5.52	0.57	0.85	45.7*
20023071	1	25	1.53	38.9	800	5.52	0.57	0.85	61*

\* Non-Stock item

## PLICORD® FURNACE DOOR



### Product Specifications

<b>APPLICATION:</b>	For carrying cooling water to furnace doors in steel mills and similar service operations where the outside of the hose is subjected to open flame and elevated temperatures.
<b>CONSTRUCTION TUBE:</b>	Plioflex® synthetic rubber (nonconductive)
<b>COVER:</b>	Fiberglass fabric ply over rubber cover
<b>REINFORCEMENT:</b>	Spiral-plyed (4) plies of synthetic fabric
<b>TEMPERATURE:</b>	-32°C to 93°C
<b>BRANDING:</b>	Not branded
<b>COUPLINGS:</b>	Contact fitting manufacturer for proper fitting recommendation and couplings procedure
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	542-309

### PLICORD® FURNACE DOOR

ID		NOM. OD		MAX. WP		WEIGHT	
in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.
1/2	12.7	1.06	26.9	200	1.38	0.38	0.57
3/4	19.1	1.32	33.5	200	1.38	0.52	0.77
1	25.4	1.64	41.7	200	1.38	0.76	1.13
1¼	31.8	2.06	52.3	200	1.38	1.19	1.77
1½	38.1	2.30	58.4	200	1.38	1.36	2.02
2	50.8	2.87	72.9	200	1.38	1.85	2.75
2½	63.5	3.36	85.3	200	1.38	2.23	3.32
3	76.0	3.85	97.8	200	1.38	5.70	8.45
4	102.0	4.87	123.8	150	1.03	6.90	10.30

## PLICORD® HD WATER DISCHARGE



### Product Specifications

- APPLICATION:** A heavy-duty, all-purpose hose with excellent abrasion resistance. It is ideal for service in quarries, mines and construction.
- CONSTRUCTION TUBE:** Black Plioflex® synthetic rubber
- COVER:** Black Plioflex® synthetic rubber (wrapped finish)
- REINFORCEMENT:** Spiral-plied (4) plies of synthetic fabric
- TEMPERATURE:** -32°C to 82°C
- BRANDING (SPIRAL):** Example: Goodyear® Plicord® HD Water
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 542-437 (65/8" and below)  
541-437 (8" and above)

### PLICORD® HD WATER DISCHARGE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20149331	1	25	1.53	38.94	200	1.38	0.60	0.89	30.5
20016581	1¼	32	1.80	45.60	200	1.38	0.72	1.07	30.5
20016585	1½	38	2.00	50.8	200	1.38	0.79	1.18	30.5
20016592	2	50	2.50	63.5	200	1.38	0.98	1.44	30.5
20016598	2½	63	3.06	77.7	200	1.38	1.36	2.02	30.5
20016602	3	75	3.55	90.2	200	1.38	1.60	2.38	30.5
20016608	4	100	4.58	116.3	150	1.03	2.10	3.13	30.5
20016614	5	125	5.57	141.5	150	1.03	2.59	3.85	30.5
20016618	6	150	6.53	165.9	150	1.03	2.87	4.27	30.5
20015559	8	200	8.57	217.7	100	0.69	4.06	6.04	15.25*

\* Non-Stock item

## V204 WATER DISCHARGE HOSE



### Product Specifications

<b>APPLICATION:</b>	General purpose hose for use in heavy duty service for a wide range of applications.
<b>CONSTRUCTION TUBE:</b>	NR / SBR Blended
<b>COVER:</b>	Black SBR / EPDM Blended; wrapped finish
<b>REINFORCEMENT:</b>	Synthetic fabric plies (2)
<b>TEMPERATURE:</b>	-20°C to 70°C
<b>BRANDING:</b>	Example; "Veyance V204 Water Discharge WP150psi"
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service

### V204 WATER DISCHARGE HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572373	1	25	1.10	19	150	1.03	0.45	0.67	30
20572374	1¼	32	1.65	42	150	1.03	0.62	0.93	30
20572375	1½	38	1.89	48	150	1.03	0.76	1.13	30
20574537	1½	38	1.89	48	150	1.03	0.76	1.13	60
20572376	2	50	2.40	61	150	1.03	0.95	1.42	30
20574538	2	50	2.40	61	150	1.03	0.95	1.42	60
20572377	2½	63	2.91	74	150	1.03	1.28	1.91	30
20572378	3	75	3.50	89	150	1.03	1.64	2.44	30
20574539	3	75	3.50	89	150	1.03	1.64	2.44	60
20572371	4	100	4.49	114	150	1.03	2.03	3.03	30
20574536	4	100	4.49	114	150	1.03	2.03	3.03	60
20572372	6	150	6.50	165	150	1.03	2.70	4.02	30



**22.00**

**WATER**

**SUCTION & DISCHARGE**



## V214 WATER SUCTION & DISCHARGE HOSE



V214 WATER SUCTION & DELIVERY WP 150 PSI

### Product Specifications

- APPLICATION:** General purpose suction and discharge hose for use in medium to heavy duty operations.
- CONSTRUCTION/TUBE:** NR / SBR Blended
- REINFORCEMENT:** Synthetic fabric plies (2) with wire helix
- COVER:** Black SBR / EPDM Blended; wrapped finish
- TEMPERATURE:** -20°C to 70°C
- BRANDING:** Example; "Veyance V214 Water Suction and Delivery WP150psi"
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### V214 WATER SUCTION & DISCHARGE HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572365	1	25	1.42	36	150	1.03	0.57	0.85	30
20574529	1	25	1.42	36	150	1.03	0.57	0.85	60
20572366	1¼	32	1.69	43	150	1.03	0.74	1.11	30
20574531	1¼	32	1.69	43	150	1.03	0.74	1.11	60
20572367	1½	38	1.93	49	150	1.03	1.04	1.55	30
20574532	1½	38	1.93	49	150	1.03	1.04	1.55	60
20572368	2	50	2.48	63	150	1.03	1.39	2.08	30
20574533	2	50	2.48	63	150	1.03	1.39	2.08	60
20572369	2½	63	3.03	77	150	1.03	1.78	2.66	30
20574534	2½	63	3.03	77	150	1.03	1.78	2.66	60
20572370	3	75	3.50	89	150	1.03	2.14	3.19	30
20574535	3	75	3.50	89	150	1.03	2.14	3.19	60
20572361	4	100	4.65	118	150	1.03	3.51	5.23	30
20572362	5	125	5.75	146	150	1.03	4.12	6.15	30
20572363	6	150	6.69	170	150	1.03	6.01	8.97	30

## PLICORD® WATER SUCTION & DISCHARGE HOSE



### Product Specifications

<b>APPLICATION:</b>	For use as a general purpose suction and discharge hose in medium to heavy-duty operations.
<b>CONSTRUCTION TUBE:</b>	Black Plioflex® synthetic rubber
<b>COVER:</b>	Black Plioflex® synthetic rubber (wrapped finish)
<b>REINFORCEMENT:</b>	Synthetic fabric plies with internal wire helix
<b>TEMPERATURE:</b>	-32°C to 82°C
<b>BRANDING:</b>	Continuous spiral brand example Goodyear® Plicord Water S&D.
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	542-158 (3/4"– 6") 541-158 (8"–16")

### PLICORD® WATER S&D

PRODUCT NO.	ID		NOM. OD		MAX. WP		BEND RADIUS		VACUUM HG		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	in.	mm.	in.	mm.	lb./ft.	kg./m.	m.
20050665	3/4	19	1.13	28.7	150	1.03	2	51	29	737	0.36	0.54	30.5
20050666	1	25	1.44	36.6	150	1.03	2	51	29	737	0.54	0.80	30.5
20016402	1¼	32	1.71	43.4	150	1.03	4	102	29	737	0.71	1.06	30.5
20016403	1½	38	1.99	50.6	150	1.03	4	102	29	737	0.90	1.34	30.5
20016407	2	50	2.48	63.0	150	1.03	6	152	29	737	1.10	1.64	30.5
20016409	2½	63	3.03	77.0	150	1.03	6	152	29	737	1.11	1.65	30.5
20016411	3	75	3.58	90.9	150	1.03	8	203	29	737	2.02	3.01	30.5
20157472	3½	88	4.11	104.3	150	1.03	9	228.6	29	737	2.41	3.60	30.5
20016417	4	100	4.63	117.6	150	1.03	10	254	29	737	2.75	4.09	30.5
20161726	4½	114	5.12	130.0	150	1.03	15	381	29	737	3.23	4.82	30.5
20016421	5	125	5.82	147.8	150	1.03	20	356	29	737	4.75	7.07	30.5
20016426	6	150	6.89	175.0	100	0.69	36	914	29	737	6.29	9.36	30.5
20015055	8	200	8.94	227.1	100	0.69	48	1219	29	737	9.11	13.57	15.25



**23.00**

**WATER  
WASHDOWN**



## FORTRESS® 300 WITH Microban® PRODUCT PROTECTION



### Product Specifications

**APPLICATION:** A high-quality construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse affects of oil and animal fats. The cover of our Fortress® 300 hose incorporates Microban's®\* antimicrobial built-in product protection.

**CONSTRUCTION TUBE:** Black Nitrile synthetic rubber

**COVER:** Yellow Carbyn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® product protection

**REINFORCEMENT:** Spiral synthetic yarn

**TEMPERATURE:** -29°C to 93°C

**BRANDING:** Example: Fortress® 300 with Microban® Antimicrobial Product Protection 3/8" 300 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 569-120 (Yellow)

### FORTRESS® 300

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20135640	1/2	12	0.90	22.8	300	2.07	0.29	0.43	152.4
20135645	3/4	19	1.19	30.2	300	2.07	0.41	0.61	152.4
20135646	1	25.4	1.50	38.1	300	2.07	0.60	0.89	137.2

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odour, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## FORTRESS® 3000 WITH Microban® PRODUCT PROTECTION



### Product Specifications

**APPLICATION:** Fortress® 3000 is for use on pressure washer machines with working pressures up to 3000 psi. Applications include washdown service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse effects of oil and animal fats. The cover of Fortress® Washdown hose incorporates Microban's®\* antimicrobial built-in product protection.

**CONSTRUCTION TUBE:** Nitrile synthetic rubber

**COVER:** Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® built-in product protection

**REINFORCEMENT:** Braided (1) steel wire

**TEMPERATURE:** -29°C to 121°C

**BRANDING:** Example: Fortress® 3000 with Microban® Antimicrobial Product Protection 3/8" 3000 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 539-400 (Yellow)  
539-401 (Blue)

### FORTRESS® 3000

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20139340	3/8	10	0.69	17.7	3000	20.69	0.15	0.22	152.4
20141423	1/2	12	0.82	20.8	3000	20.69	0.32	0.48	152.4

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## BLUE FORTRESS® 300 WITH WITH FDA COMPLIANT WHITE TUBE



### Product Specifications

**APPLICATION:** A high-quality construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries. Its super abrasion and oil-resistant cover provides maximum protection against the adverse effects of oil and animal fats. The cover of our Blue Fortress® 300 hose incorporates Microban's® antimicrobial built-in product protection. The white tube is comprised of FDA compliant materials.

**CONSTRUCTION TUBE:** White FDA compliant Nitrile synthetic rubber

**COVER:** Blue Carbryn™ synthetic rubber, RMA Class A (High Oil Resistance) with Microban® product protection

**REINFORCEMENT:** Spiral synthetic yarn

**TEMPERATURE:** -29°C to 93°C

**BRANDING:** Example: Fortress® 300 with Microban® Antimicrobial Product Protection 3/4" 300 psi WP. Made in USA. Goodyear®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODES:** 569-121

### BLUE FORTRESS® 300 WITH FDA COMPLIANT WHITE TUBE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20189064	1/2	12	0.90	22.8	300	2.07	0.30	0.45	152.4
20190318	3/4	19	1.19	30.2	300	2.07	0.44	0.65	152.4
20459020	1	25	1.50	38.1	300	2.07	0.64	0.95	137.2

\*Microban® antimicrobial product protection inhibits the growth of bacteria, mold and fungi that can cause odor, stains or degradation of the hose cover.

Microban® is intended to protect the hose cover only. It is not a substitute for good sanitary practices.

## SPECTRA® 300



## Product Specifications

- APPLICATION:** A high-quality, economical construction for hot water up to 200°F (93°C) cleanup service in food processing plants, dairies, packing houses, bottling plants, breweries, canneries and creameries.
- CONSTRUCTION TUBE:** Black Nitrile synthetic rubber, RMA Class A (High Oil Resistance), non-FDA
- COVER:** White Chemivic™ synthetic rubber, RMA Class A (High Oil Resistance)
- REINFORCEMENT:** Spiral synthetic yarn
- TEMPERATURE:** -29°C to 93°C
- BRANDING:** Example: Spectra® (19.1 mm) 300 psi WP. Made in USA. Goodyear®
- COUPLINGS:** Contact fitting manufacturer for proper fitting recommendation and coupling procedure.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- ORDER CODES:** 569-019

## SPECTRA® 300

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20026069	1/2	12	0.91	23.1	300	2.07	0.27	0.40	152.4
20026071	3/4	19	1.18	30.0	300	2.07	0.40	0.60	152.4
20026078	1	25	1.50	38.1	275	1.90	0.60	0.89	137.2



# 24.00

## WELDING

*\*Fuel Gases are defined in RMA IP-7 welding hose standard. Flammable compressed gases commonly used in the welding and cutting industry including, but not limited to, acetylene, hydrogen, methane/natural gas, LP gas, propylene and methylacetylene propadiene stabilized.*

*RMA IP-7 and CGA E-1*



## SINGLE LINE WELDING AS1335



### Product Specifications

- APPLICATION:** Goodyear®'s premium welding hose meets all the requirements of AS1335 and is used in portable and in-line gas welding service in construction, ship building, metal working and manufacturing industries. The Blue (Oxygen) and Red (Acetylene) hoses have a specially manufactured flame retardant cover as required in AS1335.
- CONSTRUCTION TUBE:** Black Versigard® (EPDM)
- COVER:** Red or Blue Versigard® (EPDM) with flame retardant cover
- REINFORCEMENT:** Spiraled synthetic textile
- TEMPERATURE:** -29°C to 82°C
- BRANDING:** Continuous brand example "Goodyear® welding to AS1335/1.2 Mpa 5.0mm I.D.
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 569-613 (Blue)  
569-606 (Red)

### WELDING - BLUE AS1335

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20027419	3/16	5	0.48	12.2	175	1.2	0.09	0.13	152.4
20027423	1/4	6	0.55	14.0	175	1.2	0.11	0.16	152.4
20027427	3/8	10	0.75	19.0	175	1.2	0.19	0.28	152.4

### WELDING - RED AS1335

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20027392	3/16	5	0.48	12.2	175	1.2	0.09	0.13	152.4
20027396	1/4	6	0.55	14.0	175	1.2	0.11	0.16	152.4
20027401	3/8	10	0.75	19.0	175	1.2	0.19	0.28	152.4

## TWINLINE WELDING AS1335



### Product Specifications

<b>APPLICATION:</b>	Goodyear®'s premium welding hose meets all the requirements of AS1335 and is used in portable and in-line gas welding service in construction, ship building, metal working and manufacturing industries. The Blue (Oxygen) and Red (Acetylene) hoses have a specially manufactured flame retardant cover as required in AS1335.
<b>CONSTRUCTION TUBE:</b>	Black Versigard® (EPDM)
<b>COVER:</b>	Red or Blue Versigard® (EPDM) with flame retardant cover
<b>REINFORCEMENT:</b>	Spiraled synthetic textile
<b>TEMPERATURE:</b>	-29°C to 82°C
<b>BRANDING:</b>	Continuous brand example “ Goodyear® welding to AS1335/1.2 Mpa 5.0mm I.D.
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	539-400 (Yellow) 539-401 (Blue)

### TWINLINE WELDING - AS1335

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20027641	3/16	5	0.48	12.2	175	1.2	0.19	0.28	229

### TWINLINE COUPLED ASSEMBLIES - AS1335

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		COIL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20572045	3/16	5	0.48	12.2	175	1.2	0.19	0.28	5
20572046	3/16	5	0.48	12.2	175	1.2	0.19	0.28	7.5
20572041	3/16	5	0.48	12.2	175	1.2	0.19	0.28	10
20572042	3/16	5	0.48	12.2	175	1.2	0.19	0.28	15
20572044	3/16	5	0.48	12.2	175	1.2	0.19	0.28	20



**25.00**

**PVC  
HOSE**



## EPFLEX GREY WATER SUCTION HOSE



### Product Specifications

**APPLICATION:** EPFLEX Grey Water Suction Hose is a general purpose suction hose used in industrial, agricultural and construction applications. Its high grade properties make it suitable to convey water, mud, light slurries, grain, sand and some chemicals.

**CONSTRUCTION TUBE:** Grey PVC

**REINFORCEMENT:** Rigid PVC helix

**TEMPERATURE:** -5°C to 60°C

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Unbranded

### EPFLEX GREY WATER SUCTION

PRODUCT NO.	ID		NOM. OD		MAX. WP		VAC RATING HG	MIN. BEND RADIUS		WEIGHT	ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	mm.	in.	mm.	kg./m	m.
20705371	1	25	1.2	31.9	130	0.9	624	4.7	120	0.35	20
20705372	1¼	32	1.5	39.4	116	0.8	624	5.9	150	0.45	20
20705400	1½	38	1.8	46.1	101	0.7	624	7.9	200	0.55	20
N/S	1¾	44	2	52.6	101	0.7	624	9.8	250	0.65	20
20705390	2	50	2.3	60.2	87	0.6	624	11.7	300	0.85	20
20705391	2½	63	2.9	74.4	87	0.6	624	15.7	400	0.98	20
20705392	3	76	3.5	89.6	73	0.5	624	17.7	450	1.50	20
20705393	4	102	4.5	116	58	0.4	624	23.6	600	2.45	20
20294110	6	152	6.6	168.6	58	0.4	624	36	914	3.42	20

Testing performed at 20° C

## EPFLEX BLUE OIL SUCTION HOSE



### Product Specifications

**APPLICATION:** Highly flexible blue Nitrile hose used in tank truck and in-plant operations to transfer some fuel, oil and other petroleum based products. Hose is designed for pressure, gravity flow or full suction service, which makes it a great choice for the collection of waste products and chemicals found in grease trap and septic tank applications.

**CONSTRUCTION TUBE:** Blue PVC (Nitrile)

**REINFORCEMENT:** Rigid PVC Helix

**TEMPERATURE:** -10°C to 60°C

**BRANDING:** Example: Goodyear® EPFLEX 50mm Blue Oil Suction

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### EPFLEX BLUE OIL SUCTION

PRODUCT NO.	ID		NOM. OD		MAX. WP		VAC RATING HG	MIN. BEND RADIUS		WEIGHT	ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa		in.	mm.		
20705383	1	25	1.2	31.9	130	0.9	624	4.7	120	0.35	20
20705352	1¼	32	1.5	39.4	116	0.8	624	5.9	150	0.45	20
20705353	1½	38	1.8	46.1	101	0.7	624	7.9	200	0.55	20
20705386	2	50	2.3	60.2	87	0.6	624	11.8	300	0.85	20
20705354	2½	50	2.9	74.4	87	0.6	624	15.7	400	0.98	20
20705392	3	76	3.5	89.6	73	0.5	624	17.7	450	1.50	20
20705393	4	102	4.5	116	58	0.4	624	23.6	600	2.45	20

Testing performed at 20° C

## EPFLOW SAFETY YELLOW AIR/ WATER HOSE



### Product Specifications

**APPLICATION:** A versatile heavy duty PVC hose suitable for use in compressed air and water applications. EPFLOW Safety Yellow has excellent UV resistance to withstand the extreme Australian conditions, and the highly visible yellow ribbed cover provides superior abrasion resistance. Conforms to AS2554-Class B

**CONSTRUCTION TUBE:** Black PVC

**COVER:** Yellow PVC, Ribbed finish, UV stabilised

**REINFORCEMENT:** Polyester

**TEMPERATURE:** -5°C to 60°C

**BRANDING:** Example: Goodyear® EPFLOW 20MM I.D. SAFETY YELLOW 1.6 Mpa. WP (AS2554)

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### EPFLOW SAFETY YELLOW AIR/WATER HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT kg./m	ROLL LENGTH m.
	in.	mm.	in.	mm.	psi	Mpa		
20728935	3/8	10	0.67	16.9	230	1.6	0.20	20
20728937	3/8	10	0.67	16.9	230	1.6	0.20	100
20728938	1/2	12	0.74	18.9	230	1.6	0.25	20
20728939	1/2	12	0.74	18.9	230	1.6	0.25	100
20705430	3/4	20	1.0	26.7	230	1.6	0.45	20
20705431	3/4	20	1.0	26.7	230	1.6	0.45	100
20705432	1	25	1.3	32.5	230	1.6	0.65	20
20705433	1	25	1.3	32.5	230	1.6	0.65	100
20705434	1¼	32	1.6	41.5	230	1.6	1.01	20
20705435	1½	38	1.9	49	230	1.6	1.10	20
20705436	2	50	2.5	63.5	230	1.6	1.75	20

## EPFLOW WHITE WASHDOWN HOSE



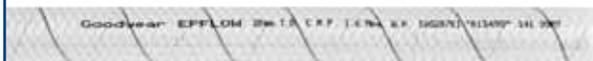
### Product Specifications

- APPLICATION:** A versatile lightweight and flexible hose for washdown areas in both industrial and agricultural applications.
- CONSTRUCTION TUBE:** White PVC
- COVER:** White PVC with blue stripe, smooth, UV stabilised
- REINFORCEMENT:** Polyester
- TEMPERATURE:** -5°C to 60°C
- BRANDING:** Example: Goodyear® EPFLOW 20MM I.D. WASHDOWN 1.0Mpa. WP (AS2554)
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### EPFLOW WHITE WASHDOWN HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT	ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	kg./m	m.
20705355	3/4	20	1.1	28.4	145	1.0	0.45	20
20705356	3/4	20	1.1	28.4	145	1.0	0.45	100
20705357	1	25	1.3	34.1	145	1.0	0.65	20
20705358	1	25	1.3	34.4	145	1.0	0.65	100
20743531	1¼	32	1.7	43.5	145	1.0	1.01	20
20743532	1¼	32	1.7	43.5	145	1.0	1.01	100
20743533	1½	38	1.9	50	145	1.0	1.10	20
20743534	1½	38	1.9	50	145	1.0	1.10	60

## EPFLOW CLEAR MULTIPURPOSE HOSE



### Product Specifications

- APPLICATION:** A versatile lightweight multipurpose hose suitable for food and beverage, general industrial and agricultural applications. EPFLOW Clear Multipurpose hose is also suitable to transfer fuel and oil based products. Conforms to AS2070 (non toxic food grade) and AS2554
- CONSTRUCTION TUBE:** Clear PVC
- COVER:** Clear PVC, Blue tint, UV stabilised
- REINFORCEMENT:** Polyester with red tracer
- TEMPERATURE:** -5°C to 60°C
- BRANDING:** Example: Goodyear® EPFLOW 10mm ID CMP 1.6 Mpa WP (AS2070)
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### EPFLOW CLEAR MULTIPURPOSE HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT	ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa		
20705148	1/4	6	0.47	12	232	1.6	0.15	20
20705149	1/4	6	0.47	12	232	1.6	0.15	100
20705410	5/16	8	0.57	14.6	232	1.6	0.16	20
20705395	5/16	8	0.57	14.6	232	1.6	0.16	100
20705412	3/8	10	0.63	16.2	232	1.6	0.20	20
20705413	3/8	10	0.63	16.2	232	1.6	0.20	100
20705414	1/2	12.5	0.7	18.9	232	1.6	0.25	20
20705415	1/2	12.5	0.7	18.9	232	1.6	0.25	100
20705416	5/8	16	0.9	23	232	1.6	0.30	20
20705417	5/8	16	0.9	23	232	1.6	0.30	100
20705418	3/4	20	1	27	232	1.6	0.35	20
20705419	3/4	20	1	27	232	1.6	0.35	100
20705420	1	25	1.31	33.5	203	1.4	0.55	20
20705421	1	25	1.31	33.5	203	1.4	0.55	100
20705396	1¼	32	1.65	42	174	1.2	0.75	20
20705397	1½	38	2	50.9	174	1.2	0.95	20
20705424	2	50	2.48	63	130	0.9	1.40	20

**WARNING:** Not suitable for permanent fuel line

## EPFLOW CLEAR VINYL TUBING



### Product Specifications

**APPLICATION:** General purpose low pressure tubing suitable for use with air, water, food, beverage, fuel and oil applications. Conforms to AS2070 (non toxic food grade)

**CONSTRUCTION TUBE:** Clear Blue Tint Virgin PVC

**TEMPERATURE:** -10°C to 60°C

**BRANDING:** Unbranded

**NON-STOCK/SIZE:** For special production run minimum requirements, please contact customer service

### EPFLOW CLEAR VINYL TUBING

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT	ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	kg./m	m.
20705441	3/32	3	0.19	5	113	0.8	0.02	30
20705442	3/16	5	0.31	8	101	0.7	0.03	30
20705443	1/4	6	0.35	9	87	0.6	0.03	30
20705444	5/16	8	0.43	11	72	0.5	0.05	30
20705398	3/8	10	0.51	13	58	0.4	0.07	30
20705359	1/2	12.5	0.63	16.1	58	0.4	0.10	30
20705450	5/8	16	0.78	20	58	0.4	0.13	30
20705451	3/4	20	1.22	25.2	43	0.3	0.27	30
20705452	1	25	1.22	31	43	0.3	0.40	30
20705453	1¼	32	1.57	40	29	0.2	0.42	30
20705454	1½	40	1.88	48	29	0.2	0.65	30
20705455	2	50	2.36	60	29	0.2	0.97	15

Testing performed at 20° C

## EPFLOW® BLUE LAYFLAT



### Product Specifications

- APPLICATION:** For light-duty water discharge applications in mining, construction, industry, agricultural and marine service.
- CONSTRUCTION TUBE:** Blue PVC compound
- COVER:** Blue PVC compound
- REINFORCEMENT:** Synthetic fabric
- TEMPERATURE:** -23°C to 77°C
- BRANDING:** Example: SF-10 2" USA
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODES:** 537-564

### SPIRAFLEX® BLUE LAYFLAT

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20737942	1½	38.1	1.67	42.4	80	0.55	0.18	0.27	100
20737943	2	50.8	2.21	56.1	80	0.55	0.24	0.37	100
20737944	3	76.2	3.20	81.3	80	0.55	0.38	0.56	100
20737945	4	101.6	4.26	108.2	70	0.48	0.53	0.79	100
20737947	6	152.4	6.26	159.0	60	0.41	0.86	1.29	100
20737948	8	203.2	8.32	211.3	35	0.24	1.30	1.93	100

Note: Working pressures are rated at 22.2°C.

## EPFLOW® RED LAYFLAT



### Product Specifications

<b>APPLICATION:</b>	For medium-duty discharge applications in mining, construction, industry, agriculture and marine service. Limited oil and chemical application. Also recommended for sprinkler pivot and water transport
<b>CONSTRUCTION TUBE:</b>	Red PVC compound
<b>COVER:</b>	Red PVC compound
<b>REINFORCEMENT:</b>	Spiral synthetic yarn, one layer longitudinal synthetic yarn
<b>TEMPERATURE:</b>	-23°C to 77°C
<b>BRANDING:</b>	Example: SF-SS 2" USA
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODES:</b>	537-521

### SPIRAFLEX® RED LAYFLAT

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20737949	1½	38.1	1.71	43.4	150	1.03	0.23	0.34	100
20737950	2	50.8	2.24	56.9	150	1.03	0.36	0.54	100
20737951	3	76.2	3.29	83.6	150	1.03	0.65	0.96	100
20737952	4	101.6	4.32	109.7	150	1.03	0.93	1.39	100
20737953	6	152.4	4.32	109.7	150	1.03	1.67	2.49	100

Note: Working pressures are rated at 22.2°C.

## BLUE PLIOVIC® G.S.



### Product Specifications

**APPLICATION:** A lightweight, economical general purpose hose for carrying air, water and many spray solutions. Pliovic® is suitable for a wide range of industrial, construction, agricultural hand sprayers and many multipurpose applications. Non-conductive, minimum electrical resistance greater than one (1) megohm per inch of hose length at 1000 Volts DC. Available in Pliovic® GS construction or a thick cover, Pliovic® Plus construction. Non-marking cover.

**CONSTRUCTION TUBE:** Black Pliovic®, RMA Class B (Medium Oil Resistance)

**COVER:** Pliovic®, smooth finish, RMA Class B (Medium Oil Resistance) Blue

**REINFORCEMENT:** Spiral synthetic yarn

**TEMPERATURE:** -23°C to 70°C for GS and Pliovic® Plus 250

**BRANDING:** Example: Pliovic® GS 3/8" ID (9.5 mm) 250 psi WP. Made in USA. Goodyear®

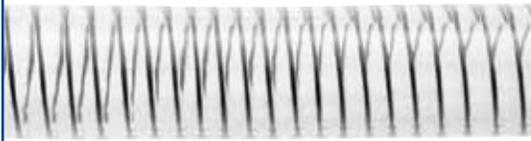
**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**PLANT CODE:** 540-350

### BLUE PLIOVIC® G.S.

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	m.
20715470	3/8	10	0.60	15.2	300	2.07	0.09	0.13	10
20342387	3/8	10	0.60	15.2	300	2.07	0.09	0.13	20
20715471	3/8	10	0.60	15.2	300	2.07	0.09	0.13	30
20342388	3/8	10	0.60	15.2	300	2.07	0.09	0.13	200
20342389	1/2	12	0.78	19.8	300	2.07	0.15	0.22	20
20715473	1/2	12	0.78	19.8	300	2.07	0.15	0.22	30
20342410	1/2	12	0.78	19.8	300	2.07	0.15	0.22	200

## EPFLEX® CLEAR STEEL SUCTION HOSE



### Product Specifications

<b>APPLICATION:</b>	A versatile clear suction hose used in the conveyance of a wide range of food and beverage materials. The non-toxic formulation conforms with FDA requirements.
<b>CONSTRUCTION TUBE:</b>	Clear PVC
<b>COVER:</b>	Clear PVC
<b>REINFORCEMENT:</b>	Spring Wire
<b>TEMPERATURE:</b>	-7°C to 66°C
<b>BRANDING:</b>	Unbranded

### EPFLEX® CLEAR STEEL SUCTION HOSE

PRODUCT NO.	ID		NOM. OD		MAX. WP		WEIGHT		MIN. BEND RADIUS		ROLL LENGTH
	in.	mm.	in.	mm.	psi	Mpa	lb./ft.	kg./m.	in.	mm.	m.
20737962	1/2	12	0.81	20.6	150	1.03	0.21	0.31	1.9	48	30.5
20737963	5/8	16	1	25	100	0.69	0.31	0.46	2.5	64	30.5
20737964	3/4	19	1.13	28.6	100	0.69	0.34	0.51	3	76	30.5
20737965	1	25	1.37	34.9	84	0.58	0.45	0.67	4	100	30.5
20737966	1¼	32	1.75	44.5	84	0.58	0.70	1.04	5	128	30.5
20737967	1½	38	2	50	84	0.58	0.90	1.34	6	152	30.5
20737968	2	50	2.5	63	70	0.48	1.10	1.64	8	200	30.5

Testing performed at 20° C



**26.00**

**AUTOMOTIVE  
HOSE**



**GOODYEAR**

**18**

## HI-MILER® STRAIGHT RADIATOR HOSE



### Product Specifications

**APPLICATION:** Quality radiator and heater hose must meet a variety of requirements for use in the diesel engines of commercial trucks and off road equipment: strength to withstand temperature extremes; compatibility with ethyl glycol; resistance to oil, acid and abrasion; and durability to last from engine overhaul to engine overhaul. Goodyear Hi-Miler hose was developed to provide all of these essential requirements at a price much lower than silicone based hoses. In addition, HI-Miler hose surpasses silicone hose in most performance categories. Meets or exceeds SAE-J20R1, D1 specifications. Rated to 300°F.

**CONSTRUCTION TUBE:** Black High Temp Versigard® to resist ozone, heat and oil

**COVER:** Flexten® High Strength Cord

**REINFORCEMENT:** Flexten®

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Example: Hi Miler Str Rad Hose 2" ID P/N 57232 Flexten SAE 20R1 D1, Made in Canada, Goodyear

### HI-MILER® STRAIGHT RADIATOR HOSE

ID / DESCRIPTION	SAP NO.	PLANT #	IMPERIAL PART #	ID / DESCRIPTION	SAP NO.	PLANT #	IMPERIAL PART #
7/8" x 3FT	20017158	542-954214	57214	23/8" x 3FT	20017171	542-954238	57238
1" x 3FT	20017159	542-954216	57216	2½" x 3FT	20017172	542-954240	57240
1 1/8" x 3FT	20017160	542-954218	57218	2 5/8" x 3FT	20017174	542-954242	57242
1 ¼" x 3FT	20017161	542-954220	57220	2 ¾" x 3FT	20017175	542-954244	57244
1 3/8" x 3FT	20017162	542-954222	57222	2 7/8" x 3FT	20016263	541-954246	57246
1 ½" x 3FT	20017163	542-954224	57224	3" x 3FT	20017176	542-954248	57248
1 5/8" x 3FT	20017164	542-954226	57226	3 ¼" x 3FT	20016264	541-957252	57252
1 ¾" x 3FT	20017165	542-954228	57228	3 ½" x 3FT	20017178	542-954256	57256
1 7/8" x 3FT	20017166	542-954230	57230	3 ¾" x 3FT	20016265	541-957260	57260
2" x 3FT	20017167	542-954232	57232	4" x 3FT	20017179	542-954264	57264
2 1/8" x 3FT	20017169	542-954234	57234	4 ½" x 3FT	20017182	542-954272	57272
2 ¼" x 3FT	20017170	542-954236	57236	5" x 3FT	20017183	542-954280	57280

## FLEXIBLE RADIATOR HOSE



### Product Specifications

**APPLICATION:** Designed for radiator hose applications where a molded radiator hose is not available. Corrugated cover that easily bends to replicate the original coolant hose. Flexible Radiator Hose maintains full flow and resists collapse with a wire insert. Hose is designed to be used with automotive coolants.

**CONSTRUCTION TUBE:** Black Versigard inner and outer tube

**REINFORCEMENT:** Synthetic knit reinforcement

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Unbranded

### FLEXIBLE RADIATOR HOSE

PRODUCT NO.	SIZE	PRODUCT NO.	SIZE	PRODUCT NO.	SIZE	PRODUCT NO.	SIZE
	mm.		mm.		mm.		mm.
585-952007	32 x 188	585-952413	38 x 349	585-952810	44 x 254	585-953216	50 x 427
585-952010	32 x 245	585-952414	38 x 336 x 44	585-952811	44 x 284	585-953220	50 x 508
585-952011	32 x 279	585-952415	38 x 400	585-952812	44 x 381 x 50	585-953224	50 x 610
585-952015	32 x 375	585-952416	38 x 433	585-952813	44 x 337	585-953609	56 x 229
585-952016	32 x 393 x 38	585-952417	38 x 497 x 44	585-952814	44 x 362 x 50	585-953611	56 x 279
585-952017	32 x 432	585-952418	38 x 414 x 44	585-952816	44 x 363	585-953614	56 x 356
585-952020	32 x 497 x 38	585-952419	38 x 123	585-952817	44 x 424 x 50	585-953617	56 x 432
585-952021	32 x 508	585-952420	38 x 495 x 44	585-952818	44 x 478	585-953619	56 x 483
585-952023	32 x 584	585-952422	38 x 559	585-952819	44 x 483 x 50	585-954016	63 x 406
585-952407	38 x 192	585-952423	38 x 584 x 44	585-952823	44 x 597	585-954024	63 x 610
585-952409	38 x 229	585-952425	38 x 635	585-953209	50 x 241		
585-952410	38 x 271	585-952430	38 x 762	585-953212	50 x 311		
585-952412	38 x 309	585-952808	44 x 219	585-953214	50 x 362		

## STANDARD STRAIGHT RADIATOR HOSE



### Product Specifications

- APPLICATION:** Heavy construction for strength to resist vibration and collapse. Cover and tube are resistant to heat, ozone, and all antifreeze solutions. Meets SAE-J20R1, Class D1 specifications.
- CONSTRUCTION TUBE:** Black Versigard® to resist ozone, heat and oil
- COVER:** Black Versigard® to resist ozone, heat and oil
- REINFORCEMENT:** 2 plies of synthetic fabric
- TEMPERATURE:** Designed for high temperatures experienced in truck and bus engine compartments
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- BRANDING:** Example: Goodyear™ STD RAD HOSE 1 ¼" ID P/N 56020 SAE20R1 D1

### STANDARD STRAIGHT RADIATOR HOSE

ID / DESCRIPTION	PRODUCT NO.	PLANT #	IMPERIAL PART #	ID / DESCRIPTION	PRODUCT NO.	PLANT #	IMPERIAL PART #
1/2" x 3FT	20017184	542-956008	56008	2 1/8" x 3FT	20017217	542-956034	56034
3/4" x 3FT	20017185	542-956012	56012	2 1/4" x 3FT	20017219	542-956036	56036
7/8" x 3FT	20017188	542-956014	56014	2 3/8" x 3FT	20017221	542-956038	56038
1" x 3FT	20017191	542-956016	56016	2 1/2" x 3FT	20017223	542-956040	56040
1 1/8" x 3FT	20017193	542-956018	56018	2 5/8" x 3FT	20017225	542-956042	56042
1 1/4" x 3FT	20017197	542-956020	56020	2 3/4" x 3FT	20017227	542-956044	56044
1 5/16" x 3FT	20017200	542-956021	56021	2 7/8" x 3FT	20017229	542-956046	56046
1 3/8" x 3FT	20017202	542-956022	56022	3" x 3FT	20017231	542-956048	56048
1 1/2" x 3FT	20017204	542-956024	56024	3 1/4" x 3FT	20017233	542-956052	56052
1 5/8" x 3FT	20017207	542-956026	56026	3 1/2" x 3FT	20017235	542-956056	56056
1 3/4" x 3FT	20017210	542-956028	56028	3 3/4" x 3FT	20017237	542-956060	56060
1 7/8" x 3FT	20017212	542-956030	56030	4" x 3FT	20017239	542-956064	56064
2" x 3FT	20017214	542-956032	56032				

## FUEL LINE/EMISSION CONTROL HOSE



### Product Specifications

**APPLICATION:** Multipurpose hose for use on fuel line, PCV and EEC systems. The Hysunite® hose cover is oil and petrol resistant and withstands exposure to fuel, vapor, moisture and high heat up to 125°C. The rubber tube is specially compounded to resist diesel, oil and unleaded petrol and blends of ethanol, methanol and others. Meets or exceeds the requirements of SAEJ30R6 & SAEJ30R7.

**CONSTRUCTION TUBE:** Black Nitrile to resist ozone, heat and petroleum products

**REINFORCEMENT:** Synthetic textile

**COVER:** Black Hysunite® to resist ozone, heat and oil

**TEMPERATURE:** -40°C to 125°C

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Continuous brand example "Goodyear™ 5/8" (15.9mm) Fuel/Emission SAE30R7 Made in USA"

### FUEL LINE/EMISSION CONTROL HOSE (REELS)

ID / DESCRIPTION	PRODUCT NO.	PLANT #	IMPERIAL PART #	MAX. WP		ROLL LENGTH
				psi	Mpa	
3/16" (5mm)	20027934	580-019048	N/A	50	0.35	152.4
1/4" (6mm)	20027951	580-019064	N/A	50	0.35	152.4
5/16" (8mm)	20027995	580-019079	N/A	50	0.35	152.4
3/8" (10mm)	20028045	580-019095	N/A	50	0.35	152.4
1/2" (12mm)	20028115	580-019127	N/A	35	0.24	152.4
5/8" (16mm)	20028134	580-019159	N/A	35	0.24	152.4

### FUEL LINE/EMISSION CONTROL HOSE (SPOOLS)

ID / DESCRIPTION	PRODUCT NO.	PLANT #	IMPERIAL PART #	MAX. WP		ROLL LENGTH
				psi	Mpa	
3/16" (5mm)	20029242	580-019048	65125	50	0.35	7.62
1/4" (6mm)	20029246	580-019064	65126	50	0.35	7.62
5/16" (8mm)	20029255	580-019079	65127	50	0.35	7.62
3/8" (10mm)	20029273	580-019095	65128	50	0.35	7.62
1/2" (12mm)	20029293	580-019127	65116	35	0.24	15.25
7/16" (11mm)	20029283	580-019159	65129	35	0.24	7.62
5/8" (16mm)	20029303	580-019159	65117	35	0.24	15.25
3/4" (19mm)	20367768	580-019191	65118	35	0.24	15.25

**WARNING** - For fuel injected vehicles, use SAE-J30R9 fuel injection hose

## FUEL INJECTION HOSE



### Product Specifications

**APPLICATION:** The ideal replacement hose for fuel injected vehicles. Designed to perform with unleaded fuels, as well as Ethanol and Methanol blends. DuPont Dow Elastomers Hypalon\* cover is oil and gasoline resistant and withstands exposure to grease, ozone and coolants. Dyneon Fluorel\*\* liner resists deterioration from oxidized gas which forms in fuel injection systems. Meets or exceeds SAE specifications J30R9 and GM 6163.

**COVER:** DuPont Dow Elastomers Hypalon\*

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Example "Goodyear 5/16" (7.9mm) Fuel Injection Hose SAE J30R9 Made in EU"

### FUEL INJECTION HOSE

ID / DESCRIPTION	PRODUCT #	PLANT #	IMPERIAL PART #	MAX. WP		ROLL LENGTH
				psi	Mpa	
1/4" (6mm)	20296541	588-965151	65151	180	1.24	7.62
5/16" (8mm)	20296538	588-965152	65152	180	1.24	7.62
3/8" (10mm)	20296571	588-965153	65153	180	1.24	7.62

\*Hypalon is registered by DuPont Dow Elastomers L.L.C.

\*\*Fluorel is registered by Dyneon L.L.C. (assigned in 1997 by Minnesota Mining and Mfg.)

## HI-MILER® BLUE HEATER HOSE



### Product Specifications

**APPLICATION:** This strong, high-temperature rated heater hose resists the effects of heat and electrochemical degradation. It's made with high-temperature Versigard® rubber and reinforced with heatresistant Flexten® cord that, pound for pound, is stronger than steel. Built to outlast standard heater hose without the cost of more expensive silicone hose. Its high-profile blue cover allows fast identification. Exceeds SAE 20R3 Class D3 - HT (high temperature designation) - EC (electrochemical) specifications. The temperature is rated up to 300°F.

**CONSTRUCTION TUBE:** Black High Temp Versigard® to resist ozone, heat and oil

**REINFORCEMENT:** Flexten® Cord

**COVER:** Blue High Temp Versigard® to resist ozone, heat and oil

**TEMPERATURE:** -40°C to 149°C

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Example: "Goodyear™ Hi Miler® Heater hose 1/2" (13mm) Made in USA"

### HI-MILER® BLUE HEATER HOSE

ID / DESCRIPTION	PRODUCT #	PLANT #	IMPERIAL PART #	MAX. WP		ROLL LENGTH
				psi	Mpa	m.
5/16" (8mm)	20029194	580-015010	65027	60	0.41	15.24
3/8" (10mm)	20029196	580-015095	65028	60	0.41	15.24
1/2" (12mm)	20029198	580-015127	65029	60	0.41	15.24
1/2" (12mm)	20029200	580-015127	65030	60	0.41	76.2
5/8" (16mm)	20029202	580-015159	65031	60	0.41	15.24
5/8" (16mm)	20029204	580-015159	65032	60	0.41	76.2
3/4" (19mm)	20029210	580-015159	65033	60	0.41	15.24
3/4" (19mm)	20029212	580-015159	65034	60	0.41	76.2
1" (25mm)	20029218	580-015254	65035	45	0.31	15.24

**WARNING** - Do not use on fuel applications

## STANDARD BLACK HEATER HOSE



### Product Specifications

**APPLICATION:** This high-quality hose is designed to operate under normal operating conditions. Specially compounded to provide long service life on most vehicles at an affordable price. Similar to SAE 20R3 Class D2 specifications.

**TUBE:** Black Versigard® to resist ozone, heat and oil

**REINFORCEMENT:** Synthetic Textile

**COVER:** Black Versigard® to resist ozone, heat and oil

**TEMPERATURE:** -40°C to 121°C

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Example "Goodyear™ Heater hose 1/2" (13mm) Made in USA"

### STANDARD BLACK HEATER HOSE (REELS)

ID / DESCRIPTION	PRODUCT #	PLANT #	IMPERIAL PART #	MAX. WP		ROLL LENGTH
				psi	Mpa	
1/2" (12mm)	20027649	580-001127	N/A	60	0.41	152.4
5/8" (16mm)	20027661	580-001159	N/A	60	0.41	152.4
3/4" (19mm)	20027674	580-001191	N/A	50	0.34	152.4
1" (25mm)	20027683	580-001254	N/A	45	0.31	137.2

### STANDARD BLACK HEATER HOSE (BOXES)

ID / DESCRIPTION	PRODUCT #	PLANT #	IMPERIAL PART #	MAX. WP		ROLL LENGTH
				psi	Mpa	
3/8" (10mm)	20029117	580-001095	64997	60	0.41	15.24
1/2" (12mm)	20012258	580-001127	65000	60	0.41	15.24
5/8" (16mm)	20029128	580-001159	65004	60	0.41	15.24
3/4" (19mm)	20029143	580-001191	65009	50	0.34	15.24
1" (25mm)	20029158	580-001254	65012	45	0.31	15.24

**WARNING** - Do not use on fuel applications

## AIR BRAKE HOSE



### Product Specifications

**APPLICATION:** For compressed air brake systems for trucks and buses. Reinforced with braided synthetic cord for high-performance strength. Used with standard air brake replaceable couplings. Built to SAE specifications. Meets SAE-J1402 specifications and DOT regulation FMVSS-106. Tube and cover resist oil.

**CONSTRUCTION TUBE:** Black seamless, oil and heat resistant synthetic rubber

**REINFORCEMENT:** 2 spirals of synthetic fabric

**COVER:** Black seamless, oil, heat and weather resistant synthetic rubber

**TEMPERATURE:** -40°C to 100°C

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Example: "DOT GY Air Brake 1/2" SP SAEJ1402 A I II"

### AIR BRAKE HOSE

ID / DESCRIPTION	PRODUCT #	PLANT #	MAX. WP		ROLL LENGTH
			psi	Mpa	
3/8" (10mm)	20277547	580-032095	225	1.55	76.2
3/8" (10mm)	20110918	580-032095	225	1.55	152.4
1/2" (12mm)	20277561	580-032127	225	1.55	76.2
1/2" (12mm)	20110981	580-032127	225	1.55	152.4

## **GALAXY®** INTERNAL NYLON BARRIER AIR CONDITIONING HOSE



### Product Specifications

**APPLICATION:** Provides protection against refrigerant effusion in automotive air conditioning systems. Exceeds all criteria of SAE-J51 and other OEM requirements. Can be coupled using standard fittings for SAE-J2064-A2 and SAE-J51-A2 applications. Compatible with R12, R134A and Ternary Blends, as well as the new second generation of refrigerants now on the market. By reducing emissions of freon into the atmosphere, Galaxy® hose helps reduce the destructive environmental effects of automotive refrigerants. Complies with SAE J2064-A.

**NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

**BRANDING:** Goodyear GALAXY®

### **GALAXY® 4860 (SINGLE BRAID)**

ID / DESCRIPTION	PRODUCT #	PLANT #	IMPERIAL PART #	ROLL LENGTH
5/16" (8mm)	20140039	534-860010	#6	15.25
13/32" (10mm)	20140120	534-860013	#8	15.25
1/2" (12mm)	20140121	534-860016	#10	15.25
5/8" (16mm)	20140122	534-860020	#12	15.25

### **GALAXY® 4826 (DOUBLE BRAID)**

ID / DESCRIPTION	PRODUCT #	PLANT #	IMPERIAL PART #	ROLL LENGTH
5/16" (8mm)	20070760	534-826010	#6	251
13/32" (10mm)	20070761	534-826013	#8	221
1/2" (12mm)	20070762	534-826016	#10	213
5/8" (16mm)	20070763	534-826020	#12	160

## TRANSMISSION OIL COOLER HOSE



### Product Specifications

- APPLICATION:** For use in connecting add-on and external transmission oil coolers for auto and light truck.
- CONSTRUCTION TUBE:** Black Chemigum (Nitrile)
- REINFORCEMENT:** 2-Spiral synthetic
- COVER:** Black Hypalon (CSM)
- TEMPERATURE:** -40°C to 121°C
- BRANDING:** Example: Goodyear Transmission Oil Cooler Hose 3/8" (9.5mm)
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 580-018

### TRANSMISSION OIL COOLER HOSE

PRODUCT NO.	IMPERIAL PART #	ID	OD	MAX. WP	MAX. BP	WEIGHT	ROLL LENGTH
		in.	in.	psi	psi.	lbs./ft.	m.
20038616	65211	5/16	0.62	250	1000	0.14	7.62
20029240	65213	3/8	0.69	250	1000	0.16	7.62
20341012	65217	1/2	0.87	250	1000	0.25	7.62

## POWER STEERING RETURN HOSE



### Product Specifications

- APPLICATION:** Designed for use as on the return side of automotive and truck power steering systems where resistance to power steering fluid is critical.
- CONSTRUCTION TUBE:** Black Wingprene (CR)
- REINFORCEMENT:** 2-Spiral synthetic
- COVER:** Black Wingprene (CR)
- TEMPERATURE:** -40°C to 121°C
- BRANDING:** Example: 3/8 (9.5mm) SAE J189 Goodyear
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 580-007

### POWER STEERING RETURN HOSE

PRODUCT NO.	IMPERIAL PART #	ID	OD	MAX. WP	MAX. BP	WEIGHT	ROLL LENGTH
		in.	in.	psi	psi.	lbs./ft.	m.
20027841	65221	3/8	0.66	250	1000	0.13	7.62

## POWER BRAKE VACUUM HOSE HEAVY WALL



### Product Specifications

- APPLICATION:** A heavy wall construction power brake vacuum hose designed to fit most brake systems on trucks, trailers and construction equipment with resistance to collapsing or deforming. Meets or exceeds the requirements of SAEJ1403 Type H and DOT FMVSS-106VH.
- CONSTRUCTION TUBE:** Black Versigard (EPDM)
- REINFORCEMENT:** 2-Spiral Synthetic
- COVER:** Black Versigard (EPDM)
- TEMPERATURE:** -40°C to 125°C
- BRANDING:** Example: SAE J1403 DOT GY 1/2 VH
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service

### POWER BRAKE VACUUM HOSE - HEAVY WALL (BOXES)

PRODUCT NO.	IMPERIAL PART #	ID	OD	MAX. BP	VACUUM (HG)	WEIGHT	ROLL LENGTH
		in.	in.	psi	in.	lbs./ft.	m.
20029361	65102	3/8	0.81	350	26	0.33	15.25
20029362	65103	1/2	0.94	350	26	0.40	15.25
20029364	65105	3/4	1.19	350	26	0.53	15.25

### POWER BRAKE VACUUM HOSE - HEAVY WALL (REELS)

PRODUCT NO.	IMPERIAL PART #	ID	OD	MAX. BP	VACUUM (HG)	WEIGHT	ROLL LENGTH
		in.	in.	psi	in.	lbs./ft.	m.
20027870	-	1/2	0.94	350	26	0.40	152.4
20027876	-	3/4	1.19	350	26	0.53	152.4

## POWER BRAKE VACUUM HOSE LIGHT WALL



### Product Specifications

- APPLICATION:** A light duty hose specifically designed for power brake vacuum applications on car and light duty truck. Meets or exceeds the requirements of SAEJ1403 Type L and DOT FMVSS-106VH
- CONSTRUCTION TUBE:** Black Versigard (EPDM)
- REINFORCEMENT:** 2-Spiral synthetic
- COVER:** Black Versigard (EPDM)
- TEMPERATURE:** -40°C to 125°C
- BRANDING:** SAE J1403 DOT GY 11/32 VL
- NON-STOCK/SIZES:** For special production run minimum requirements, please contact customer service
- PLANT CODE:** 580-010

### POWER BRAKE VACUUM HOSE - LIGHT WALL

PRODUCT NO.	IMPERIAL PART #	ID	OD	MAX. BP	VACUUM (HG)	WEIGHT	ROLL LENGTH
		in.	in.	psi	in.	lbs./ft.	m.
20025387	65107	11/32	0.69	350	26	0.15	15.25
20025389	65108	15/32	0.81	350	26	0.28	15.25
20027859	N/A	11/32	0.69	350	26	0.15	152.4

## WINDSHIELD WIPER/ RADIATOR OVERFLOW TUBING



### Product Specifications

<b>APPLICATION:</b>	Tubing that is designed to be used on windshield wiper systems, windshield washer fluid tanks, wet arm wiper tubing, radiator overflow tanks, and as vacuum tubing.
<b>CONSTRUCTION TUBE:</b>	EPDM
<b>REINFORCEMENT:</b>	No reinforcement
<b>COVER:</b>	No cover
<b>TEMPERATURE:</b>	-40°C to 125°C
<b>BRANDING:</b>	Unbranded
<b>NON-STOCK/SIZES:</b>	For special production run minimum requirements, please contact customer service
<b>PLANT CODE:</b>	580-560

### WINDSCREEN WIPER/RADIATOR OVERFLOW TUBING

PRODUCT NO.	IMPERIAL PART #	ID	NIPPLE SIZE	MAX. BP	WEIGHT	ROLL LENGTH
		in.	in.	psi	lbs./ft.	m.
20220800	65109	3/32	1/16	50	0.01	15.25
20029314	65113	7/64	1/8	50	0.02	15.25
20029321	65111	5/32	3/16	50	0.04	15.25
20029327	65112	7/32	1/4	50	0.04	15.25
20029331	65114	9/32	5/16	50	0.05	15.25
20220437	65101	3/8	7/16	50	0.06	15.25

Longer lengths available, please contact customer service for current availability



**27.00**

**COUPLING  
SYSTEMS**



FLEXSTEEL 250 CB-20 STEAM 250 PSI WP

TEAM 250 PSI WP 425F DRAIN AFTER USING MADE IN U.S.A.

USING MADE IN U.S.A.

FLEXSTEEL 250 CB-20 STEAM 250 PSI WP 425F DRAIN AFTER US

FLEXSTEEL 250 CB-20 STEAM 250 PSI WP 425F DRAIN AFTER US

## INSTA-LOCK™ TYPE A MALE ADAPTER X FEMALE BSP THREAD



### Product Specifications

**APPLICATION:** Type A fitting is commonly threaded onto a pipe, threaded hose end or manifold system, which is connected and disconnected on a regular basis. Insta-Lock™ fittings are designed for liquids and dry bulk. Consult the chemical resistance guide for specific chemical recommendations.

**MATERIALS:** Aluminum, 316# Stainless Steel

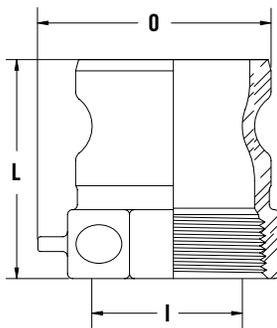
**PRESSURE RATING:** Sizes 1/2"– 2", 250 PSI; sizes 2½"– 4", 150 PSI; sizes 5"– 6", 75 PSI. Recommended working pressure ratings based on ambient temperature (70°F).

**BRANDING:** Example: Goodyear® A200SS

**PLANT CODES:** 650-825 (aluminum)  
650-841 (stainless steel)

### INSTA-LOCK™ TYPE A MALE ADAPTER X FEMALE BSP THREAD

\*Available in NPT thread ex USA



SIZE	ALUMINUM	STAINLESS STEEL
1/2	A050AL	A050SS
3/4	A075AL	A075SS
1	A100AL	A100SS
1¼	A125AL	A125SS
1½	A150AL	A150SS
2	A200AL	A200SS
2½	A250AL	A250SS
3	A300AL	A300SS
4	A400AL	A400SS
5	A500AL	A500SS
6	A600AL	A600SS

SIZE	DISTANCE CHAIN LUG EXTENDS FROM BODY	OVERALL LENGTH (L)	MAXIMUM WIDTH ACROSS ADAPTER (O)	MINIMUM ID (I)
in.	in.	in.	in.	in.
1/2	0.375	1.656	1.500	0.500
3/4	0.375	1.656	1.688	0.781
1	0.375	2.163	1.804	0.875
1¼	0.375	2.437	2.237	1.063
1½	0.375	2.531	2.368	1.375
2	0.375	2.781	2.909	1.750
2½	0.375	3.093	3.585	2.187
3	0.375	3.281	4.009	2.812
4	0.375	3.528	5.257	3.750
5	0.375	3.813	6.438	4.688
6	0.375	3.656	7.688	5.750

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service.

## INSTA-LOCK™ TYPE B FEMALE COUPLER X MALE BSP THREAD



### Product Specifications

**APPLICATION:** Type B fitting is normally threaded onto a pipe or manifold which joins to a rubber hose assembly which is connected and disconnected regularly. Insta-Lock™ fittings are designed for liquids and dry bulk. Consult the chemical resistance guide for specific chemical recommendations.

**MATERIALS:** Aluminum, 316# Stainless Steel

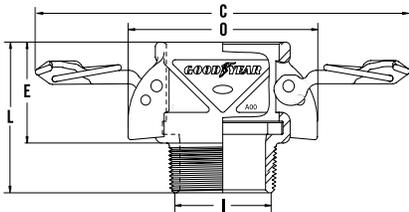
**PRESSURE RATING:** Sizes 1/2"– 2", 250 PSI; sizes 2½"– 4", 150 PSI; sizes 5"– 6", 75 PSI. Recommended working pressure ratings based on ambient temperature (70°F) with Standard Nitrile gaskets.

**BRANDING:** Example: Goodyear® B200SS

**PLANT CODES:** 650-826 (aluminum)  
650-842 (stainless steel)

### INSTA-LOCK™ TYPE B FEMALE COUPLER X MALE BSP THREAD

\*Available in NPT thread ex USA



SIZE	ALUMINUM	STAINLESS STEEL
1/2	B050AL	B050SS
3/4	B075AL	B075SS
1	B100AL	B100SS
1¼	B125AL	B125SS
1½	B150AL	B150SS
2	B200AL	B200SS
2½	B250AL	B250SS
3	B300AL	B300SS
4	B400AL	B400SS
5	B500AL	B500SS
6	B600AL	B600SS

SIZE	MAX WIDTH WITH CAM ARMS CLOSED (O)	OVERALL LENGTH (L)	EXPOSED LENGTH (E)	MINIMUM ID (I)	MAX WIDTH WITH CAM ARMS EXTENDED (C)
in.	in.	in.	in.	in.	in.
1/2	2.469	1.906	1.188	0.469	4.969
3/4	2.781	2.031	1.313	0.688	5.261
1	2.920	2.500	1.625	0.875	5.367
1¼	3.510	2.937	2.000	1.063	7.669
1½	3.830	2.937	2.000	1.375	7.967
2	4.210	3.218	2.156	1.750	8.340
2½	4.720	3.718	2.250	2.187	8.837
3	5.680	4.000	2.468	2.812	10.435
4	6.780	4.218	2.593	3.750	11.538
5	7.813	4.406	2.625	4.688	12.571
6	9.344	4.750	2.844	5.750	16.096

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service. Goodyear® Engineered Products Insta-Lock Cam Arms are designed exclusively for Insta-Lock fittings.

## INSTA-LOCK™ TYPE C FEMALE COUPLER X HOSE SHANK



### Product Specifications

**APPLICATION:** Type C fitting can be attached to a rubber hose with the use of interlocking ferrules, crimp sleeves, or bands. Insta-Lock™ fittings are designed for liquids and dry bulk. Consult the chemical resistance guide for specific chemical recommendations.

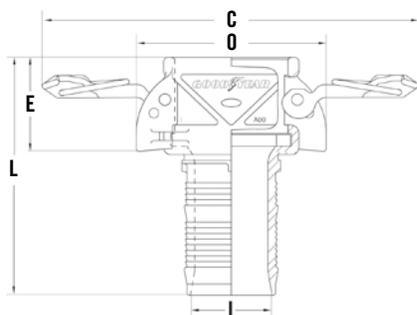
**MATERIALS:** Aluminum, 316# Stainless Steel

**PRESSURE RATING:** Sizes 1/2"– 2", 250 PSI; sizes 2½"– 4", 150 PSI; sizes 5"– 6", 75 PSI. Recommended working pressure ratings based on ambient temperature (70°F) with Standard Nitrile gaskets.

**BRANDING:** Example: Goodyear® C200SS

**ORDER CODES:** 650-827 (aluminum)  
650-843 (stainless steel)

### INSTA-LOCK™ TYPE C FEMALE COUPLER X HOSE SHANK



SIZE	ALUMINUM	STAINLESS STEEL
1/2	C050AL	C050SS
3/4	C075AL	C075SS
1	C100AL	C100SS
1¼	C125AL	C125SS
1½	C150AL	C150SS
2	C200AL	C200SS
2½	C250AL	C250SS
3	C300AL	C300SS
4	C400AL	C400SS
5	C500AL	C500SS
6	C600AL	C600SS

SIZE	MAX WIDTH WITH CAM ARMS CLOSED (O)	OVERALL LENGTH (L)	EXPOSED LENGTH (E)	MINIMUM ID (I)	MAX WIDTH WITH CAM ARMS EXTENDED (C)
in.	in.	in.	in.	in.	in.
1/2	2.469	3.063	1.188	0.260	4.969
3/4	2.781	3.656	1.313	0.490	5.261
1	2.920	4.250	1.975	0.718	5.367
1¼	3.510	4.625	2.350	0.906	7.669
1½	3.830	4.750	2.370	1.156	7.967
2	4.210	5.281	2.531	1.625	8.340
2½	4.720	5.750	2.625	2.093	8.837
3	5.680	6.840	2.849	2.560	10.435
4	6.780	7.218	2.994	3.468	11.538
5	7.813	7.563	2.625	4.469	12.571
6	9.344	8.969	2.844	5.469	16.096

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service. Goodyear® Engineered Products Insta-Lock Cam Arms are designed exclusively for Insta-Lock fittings.

**INSTA-LOCK™ TYPE D**  
FEMALE COUPLER X FEMALE THREAD



**Product Specifications**

**APPLICATION:** Type D fitting is commonly threaded onto a pipe, threaded hose end or manifold system, which is connected and disconnected on a regular basis. Insta-Lock™ fittings are designed for liquids and dry bulk. Consult the chemical resistance guide for specific chemical recommendations.

**MATERIALS:** Aluminum, 316# Stainless Steel

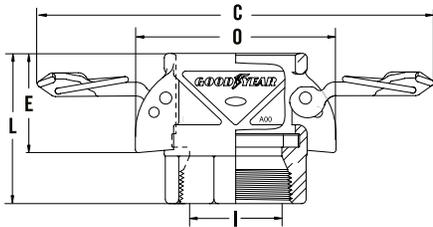
**PRESSURE RATING:** Sizes 1" – 2", 250 PSI; sizes 2½" – 4", 150 PSI; sizes 5" – 6", 75 PSI. Recommended working pressure ratings based on ambient temperature (70°F) with Standard Nitrile gaskets.

**BRANDING:** Example: Goodyear® D200SS

**ORDER CODES:** 650-828 (aluminum)  
650-844 (stainless steel)

**INSTA-LOCK™ TYPE D FEMALE COUPLER X FEMALE THREAD**

\*Available in NPT thread ex USA



SIZE	ALUMINUM	STAINLESS STEEL
1/2	D050AL	D050SS
3/4	D075AL	D075SS
1	D100AL	D100SS
1¼	D125AL	D125SS
1½	D150AL	D150SS
2	D200AL	D200SS
2½	D250AL	D250SS
3	D300AL	D300SS
4	D400AL	D400SS
5	D500AL	D500SS
6	D600AL	D600SS

SIZE	MAX WIDTH WITH CAM ARMS CLOSED (O)	OVERALL LENGTH (L)	EXPOSED LENGTH (E)	MINIMUM ID (I)	MAX WIDTH WITH CAM ARMS EXTENDED (C)
in.	in.	in.	in.	in.	in.
1/2	2.469	1.813	1.188	0.656	4.969
3/4	2.781	2.063	1.313	0.813	5.261
1	2.920	2.375	1.975	1.000	5.367
1¼	3.510	2.687	2.350	1.300	7.669
1½	3.830	2.843	2.370	1.560	7.967
2	4.210	3.156	2.531	1.937	8.340
2½	4.720	3.437	2.625	2.312	8.837
3	5.680	3.718	2.849	2.937	10.435
4	6.780	4.030	2.994	3.750	11.538
5	7.813	4.313	2.563	4.688	12.571
6	9.344	4.513	2.719	5.750	16.096

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service. Goodyear® Engineered Products Insta-Lock Cam Arms are designed exclusively for Insta-Lock fittings.



## INSTA-LOCK™ TYPE E MALE ADAPTER X HOSE SHANK



### Product Specifications

**APPLICATION:** Type E fitting can be attached to a rubber hose with the use of interlocking ferrules, crimp sleeve and bands. Insta-Lock™ fittings are designed for liquids and dry bulk. Consult the chemical resistance guide for specific chemical recommendations.

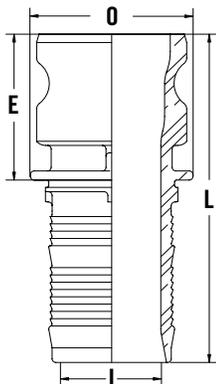
**MATERIALS:** Aluminum, 316# Stainless Steel and Brass

**PRESSURE RATING:** Sizes 1"– 2", 250 PSI; sizes 2 1/2"– 4", 150 PSI; sizes 5"– 6", 75 PSI. Recommended working pressure ratings based on ambient temperature (70°F).

**BRANDING:** Example: Goodyear® E200SS

**ORDER CODES:** 650-829 (aluminum)  
650-845 (stainless steel)

### INSTA-LOCK™ TYPE E MALE ADAPTER X HOSE SHANK



SIZE	ALUMINUM	STAINLESS STEEL
1/2	E050AL	E050SS
3/4	E075AL	E075SS
1	E100AL	E100SS
1 1/4	E125AL	E125SS
1 1/2	E150AL	E150SS
2	E200AL	E200SS
2 1/2	E250AL	E250SS
3	E300AL	E300SS
4	E400AL	E400SS
5	E500AL	E500SS
6	E600AL	E600SS

SIZE	MAXIMUM OD (O)	OVERALL LENGTH (L)	EXPOSED LENGTH (E)	MINIMUM ID (I)
in.	in.	in.	in.	in.
1/2	1.188	3.500	1.625	0.260
3/4	1.262	3.969	1.625	0.490
1	1.625	4.569	1.944	0.718
1 1/4	2.000	4.812	2.187	0.906
1 1/2	2.312	5.000	2.250	1.156
2	2.687	5.625	2.500	1.625
2 1/2	3.062	6.187	2.687	2.093
3	3.781	7.125	2.750	2.562
4	4.875	7.434	2.809	3.468
5	6.563	7.844	2.906	4.469
6	7.125	9.188	3.063	5.469

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service.

## INSTA-LOCK™ TYPE F MALE ADAPTER X MALE BSP THREAD



### Product Specifications

**APPLICATION:** Type F fitting is normally threaded into pipe or manifold connections and mated with Part C, Part B, or Part D. Used in applications that require frequent connections. Insta-Lock™ fittings are designed for liquids and dry bulk. Consult the chemical resistance guide for specific chemical recommendations.

**MATERIALS:** Aluminum, 316# Stainless Steel

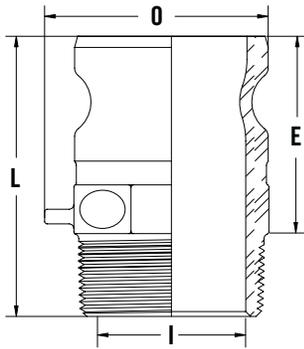
**PRESSURE RATING:** Sizes 1/2"– 2", 250 PSI; sizes 2½"– 4", 150 PSI; sizes 5"– 6", 75 PSI. Recommended working pressure ratings based on ambient temperature (70°F).

**BRANDING:** Example: Goodyear® F200SS

**ORDER CODES:** 650-830 (aluminum)  
650-846 (stainless steel)

### INSTA-LOCK™ TYPE F MALE ADAPTER X MALE BSP THREAD

\*Available in NPT thread ex USA



SIZE	ALUMINUM	STAINLESS STEEL
1/2	F050AL	F050SS
3/4	F075AL	F075SS
1	F100AL	F100SS
1¼	F125AL	F125SS
1½	F150AL	F150SS
2	F200AL	F200SS
2½	F250AL	F250SS
3	F300AL	F300SS
4	F400AL	F400SS
5	F500AL	F500SS
6	F600AL	F600SS

SIZE	MAXIMUM WIDTH ACROSS ADAPTER (O)	OVERALL LENGTH (L)	EXPOSED LENGTH (E)	MINIMUM ID (I)	DISTANCE CHAIN LUG EXTENDS FROM BOD (C)
in.	in.	in.	in.	in.	in.
1/2	1.150	2.250	1.531	0.469	0.375
3/4	1.688	2.375	1.656	0.688	0.375
1	1.730	2.819	2.038	0.875	0.375
1¼	2.130	3.156	2.279	1.187	0.375
1½	2.300	3.222	2.347	1.437	0.375
2	2.909	3.593	2.596	1.750	0.375
2½	3.281	4.218	2.812	2.187	0.375
3	3.844	4.343	2.875	2.812	0.375
4	4.994	4.746	3.184	3.734	0.375
5	6.188	4.906	3.125	4.688	0.375
6	7.500	5.219	3.313	5.750	0.375

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service. Goodyear® Engineered Products Insta-Lock Cam Arms are designed exclusively for Insta-Lock fittings.

## INSTA-LOCK™ INTERLOCKING STAINLESS STEEL MALE NPT & BSP HOSE STEMS



### Product Specifications

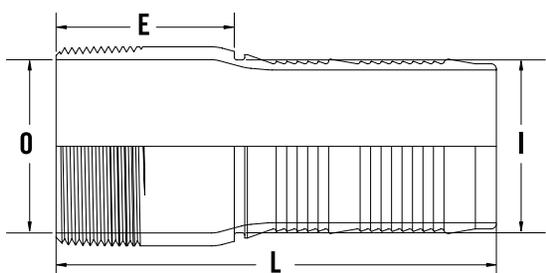
**APPLICATION:** Interlocking Stainless Steel Male NPT & BSP Hose Stem fittings are designed to be attached to a rubber hose with the use of a Goodyear® Engineered Products Insta-Lock™ Ferrule. Consult the chemical resistance guide for specific chemical resistance recommendations.

**MATERIALS:** 316# Stainless Steel

**PRESSURE RATING:** Sizes 1" to 2" 250 PSI, 2½" to 4" 150 PSI. Recommended working pressure ratings based on ambient temperature (70°F)

**ORDER CODES:** 604-824 (stainless steel)

### INSTA-LOCK™ INTERLOCKING STAINLESS STEEL MALE NPT & BSP HOSE STEMS



SIZE	NPT	BSP
1	GTM100SS	GTM100SSBT
1¼	GTM125SS	GTM125SSBT
1½	GTM150SS	GTM150SSBT
2	GTM200SS	GTM200SSBT
2½	GTM250SS	GTM250SSBT
3	GTM300SS	GTM300SSBT
4	GTM400SS	GTM400SSBT

SIZE	MAXIMUM OD (O)	OVERALL LENGTH (L)	EXPOSED LENGTH (E)	MINIMUM ID (I)
in.	in.	in.	in.	in.
1	1.315	4.375	1.750	0.830
1¼	1.660	4.500	1.875	1.130
1½	1.900	4.750	2.000	1.360
2	2.375	5.250	2.125	1.820
2½	2.875	6.125	2.625	2.240
3	3.500	7.000	2.625	2.730
4	4.500	7.625	3.000	3.710

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service.

## INSTA-LOCK™ DUST CAP



### Product Specifications

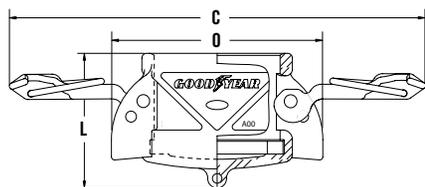
**APPLICATION:** Dust cap is used to seal the pipe system and hose assemblies during non-use or transfer of assembly. Mating parts are the Part A, Part E and Part F.

**MATERIALS:** Aluminum, 316# Stainless Steel and Brass (standard Nitrile gasket)

**BRANDING:** Example: Goodyear® DC200SS

**ORDER CODES:** 650-831 (aluminum)  
650-847 (stainless steel)

### INSTA-LOCK™ DUST CAP



SIZE	ALUMINUM	STAINLESS STEEL
1/2	DC050AL	DC050SS
3/4	DC075AL	DC075SS
1	DC100AL	DC100SS
1¼	DC125AL	DC125SS
1½	DC150AL	DC150SS
2	DC200AL	DC200SS
2½	DC250AL	DC250SS
3	DC300AL	DC300SS
4	DC400AL	DC400SS
5	DC500AL	DC500SS
6	DC600AL	DC600SS

SIZE	MAX WIDTH WITH CAM ARMS CLOSED (O)	OVERALL LENGTH (L)	OD WITH CAM ARMS EXTENDED (C)	DISTANCE CHAIN LUG EXTENDS FROM BODY
in.	in.	in.	in.	in.
1/2	2.469	1.625	4.969	0.375
3/4	2.781	1.625	5.261	0.375
1	2.920	2.086	5.367	0.375
1¼	3.510	2.360	7.669	0.375
1½	3.830	2.400	7.967	0.375
2	4.210	2.633	8.340	0.375
2½	4.720	2.786	8.837	0.375
3	5.680	2.957	10.435	0.375
4	6.780	3.134	11.538	0.375
5	7.813	3.219	12.571	0.375
6	9.344	3.500	16.096	0.375

Note: Goodyear® Engineered Products Insta-Lock Fittings are never to be used in steam or compressed air service. Goodyear® Engineered Products Insta-Lock Cam Arms are designed exclusively for Insta-Lock fittings.

Warning: Dust Caps and Dust Plugs are not to be used in pressure applications for safety and environmental reasons.

## INSTA-LOCK™ DUST PLUG



### Product Specifications

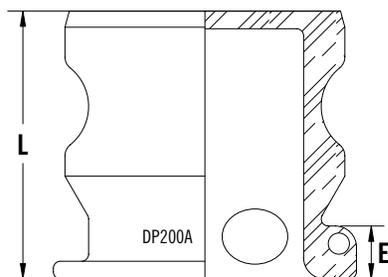
**APPLICATION:** Dust plug is used to seal the pipe system and hose assemblies during non-use or transfer of assembly. Mating parts are the Part C, Part B and Part D.

**MATERIALS:** Aluminum, 316# Stainless Steel and Brass

**BRANDING:** Example: Goodyear® DP200SS

**ORDER CODES:** 650-832 (aluminum)  
650-848 (stainless steel)

### INSTA-LOCK™ DUST PLUG



SIZE	ALUMINUM	STAINLESS STEEL
1/2	DP050AL	DP050SS
3/4	DP075AL	DP075SS
1	DP100AL	DP100SS
1¼	DP125AL	DP125SS
1½	DP150AL	DP150SS
2	DP200AL	DP200SS
2½	DP250AL	DP250SS
3	DP300AL	DP300SS
4	DP400AL	DP400SS
5	DP500AL	DP500SS
6	DP600AL	DP600SS

SIZE	OVERALL LENGTH (L)	EXPOSED LENGTH (E)
in.	in.	in.
1/2	1.531	0.500
3/4	1.563	0.500
1	1.843	0.469
1¼	2.125	0.469
1½	2.156	0.469
2	2.375	0.469
2½	2.437	0.469
3	2.500	0.469
4	2.559	0.469
5	2.594	0.469
6	2.781	0.469

Note: Goodyear® Engineered Products Fittings are never to be used in steam or compressed air service.

Warning: Dust Caps and Dust Plugs are not to be used in pressure applications for safety and environmental reasons.

## INSTA-LOCK™ REPAIR KITS



### Product Specifications

**APPLICATION:** 316# Stainless Steel and Brass

**MATERIALS:** 1 handle, 1 finger ring, 1 pin

**ORDER CODES:** 605-855 (stainless steel)    605-856 (brass)

**PART NUMBER SYSTEM:** First 3 digits = Size  
 S = Stainless Steel  
 B = Brass  
 G = Goodyear® Insta-Lock Handle  
 M = Music Wire Ring  
 P = Pin

### INSTA-LOCK™ REPAIR KITS

SIZE	STAINLESS STEEL HANDLES	BRASS HANDLES
in.	in.	in.
1/2	050SGMP	050BGMP
3/4	100SGMP	100BGMP
1	100SGMP	100BGMP
1¼	125SGMP	125BGMP
1½	150SGMP	150BGMP
2	200SGMP	200BGMP
2½	250SGMP	250BGMP
3	300SGMP	300BGMP
4	300SGMP	300BGMP
5	300SGMP	300BGMP
6	600SGMP	600BGMP

## INSTA-LOCK™ GASKETS



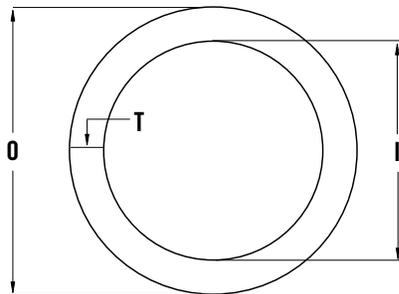
### Product Specifications

**MATERIALS:** Nitrile, Viton®, Teflon® Encapsulated Viton®, White Neoprene, Neoprene, Silicone

**ORDER CODES:** 650-849 (Nitrile)      650-850 (Viton®)      650-851 (Teflon®)  
650-852 (White Neoprene)      650-853 (Neoprene)      650-854 (Silicone)

**PART NUMBER SYSTEM:** G = Gasket  
First 3 digits = Size of Gasket  
Letters = Gasket Material Code

### INSTA-LOCK™ GASKETS



SIZE	OD (O)	ID (I)	THICKNESS (T)
1/2	1.031	0.688	0.156
3/4	1.375	0.875	0.218
1	1.563	1.062	0.250
1¼	1.938	1.359	0.250
1½	2.188	1.625	0.250
2	2.625	2.000	0.250
2½	3.125	2.375	0.250
3	3.719	3.000	0.250
4	4.875	4.000	0.250
5	5.906	4.875	0.250
6	7.063	6.000	0.250

SIZE	NITRILE	VITON®	TEFLON® ENCAPSULATED VITON®	WHITE NEOPRENE	NEOPRENE	SILICONE
in.	in.	in.	in.	in.	in.	in.
1/2	G050BN	G050VT	G050TE	G050WN	G050NE	G050SL
3/4	G075BN	G075VT	G075TE	G075WN	G075NE	G075SL
1	G100BN	G100VT	G100TE	G100WN	G100NE	G100SL
1¼	G125BN	G125VT	G125TE	G125WN	G125NE	G125SL
1½	G150BN	G150VT	G150TE	G150WN	G150NE	G150SL
2	G200BN	G200VT	G200TE	G200WN	G200NE	G200SL
2½	G250BN	G250VT	G250TE	G250WN	G250NE	G250SL
3	G300BN	G300VT	G300TE	G300WN	G300NE	G300SL
4	G400BN	G400VT	G400TE	G400WN	G400NE	G400SL
5	G500BN	G500VT	G500TE	G500WN	G500NE	G500SL
6	G600BN	G600VT	G600TE	G600WN	G600NE	G600SL

Nitrile = BN; Black  
Teflon® = TE; White/Black with yellow stripe

Neoprene = NE; Black with red stripe  
Viton® = VT; Black with yellow stripe

White Neoprene = WN; White  
Silicone = SL; Red

Viton® is a registered trademark of DuPont Dow Elastomers L.L.C.  
Teflon® is a registered trademark of E.I. du Pont de Nemours and Company.

## INSTA-LOCK™ INTERLOCKING FERRULES



### Product Specifications

**MATERIALS:** 304# Stainless Steel  
Plated Carbon Steel

**PART NUMBER SYSTEM:** FRSS200244 or FRCS200244  
FR = Ferrule; SS = Stainless Steel; CS = Plated Carbon Steel  
First 3 digits = Inside Diameter of Hose  
Fourth digit = Inside Diameter of Ferrule in inches.  
Fifth & sixth digits = Inside Diameter of Ferrule in 64ths of an inch.

### INSTA-LOCK™ INTERLOCKING FERRULES

Non-Stock

STAINLESS STEEL		PLATED CARBON STEEL	
1" FRSS100124	2" FRSS200232	3" FRSS300332	1½" FRCS150208
FRSS100128	FRSS200236	FRSS300336	FRCS150212
FRSS100132	FRSS200240	FRSS300340	FRCS150216
FRSS100136	FRSS200244	FRSS300344	
FRSS100140	FRSS200248	FRSS300348	2" FRCS200232
	FRSS200252	FRSS300352	FRCS200236
1¼" FRSS125144	FRSS200256	FRSS300356	FRCS200240
FRSS125148	FRSS200260	FRSS300360	FRCS200244
FRSS125152		FRSS300400	FRCS200248
FRSS125156	2½" FRSS250256	FRSS300404	
	FRSS250260		3" FRCS300336
1½" FRSS150156	FRSS250300	4" FRSS400436	FRCS300340
FRSS150160	FRSS250304	FRSS400440	FRCS300344
FRSS150200	FRSS250308	FRSS400444	FRCS300348
FRSS150204	FRSS250312	FRSS400448	
FRSS150208	FRSS250316	FRSS400452	4" FRCS400444
FRSS150212	FRSS250320	FRSS400456	FRCS400448
FRSS150216	FRSS250324	FRSS400460	FRCS400452
FRSS150220		FRSS400500	
		FRSS400504	

## STAINLESS STEEL & ALUMINUM CRIMP SLEEVES FOR INFINITY™/PALADIN® HOSES



### Product Specifications

**MATERIALS:** 304# Stainless Steel      Aluminum

**PART NUMBER SYSTEM:** CSSS300400  
 CS = Crimp Sleeves      SS = Stainless Steel      SAL = Aluminum  
 First 3 digits = Inside Diameter of Hose  
 Fourth digit = Inside Diameter of Sleeve in inches.  
 Fifth & sixth digits = Inside Diameter of Sleeve in 64ths of an inch.

### INFINITY™ AND PALADIN® CRIMP SLEEVES

SIZE	STAINLESS STEEL	ALUMINUM
in.	part number	part number
2	CSSS200300	SAL200260
3	CSSS300400	SAL300360
4	CSSS400500	SAL400460





**28.00**

**APPENDIX A**



## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>AIR &amp; MULTIPURPOSE</b>		
536-276	Arctic Ortac®	Popular cold temp. (-54°C) multipurpose hose
536-275	Arctic Ortac® Plus	ECO oil resistant, cold temp. (-54°C) multi purpose hose
536-422 / 421	Braidair™	Quality 300 psi braided general purpose hose for Industrial service
569-536	Mil A-A-59565 Military Hose	Military specification air hose
540-438	F5® Air Hose	Lightweight hybrid thermoplastic hose. Low drag resistance
539-078 / 097	Flexsteel® Service Station Air	Tyre inflation hose in Red or Black with abrasion & oil resistant cover
549-153	Ortac® II	200psi air hose, Class A Nitrile static dissipating tube, Red Class B cover
549-406	Plicord® Green EC Air	400psi wrapped finish Green Air hose, Class B Nitrile tube, Green SBR Class C cover
549-007	Plicord® Air Yellow	300psi air hose, Class C non-conductive tube, Yellow Class C cover
549-260	Plicord® Rock Drill	400-500psi air hose, Class C tube, Blue with Yellow stripe Class C cover
540-337	Pliovic® FG (FDA-3A)	Clear multipurpose, lightweight, reinforced tubing. FDA
540-438	Pliovic® PVC Tubing	Clear PVC tubing (CVT) FDA, 3-A and USDA compliant
549-153	Ortac® II	200psi air hose, Class A Nitrile static dissipating tube, Red Class B cover
569-018	Service Station Air	Coupled or uncoupled air hose for use on towers or reels
563-599 / 600	Ultrabraid Air	400psi air hose, Class C tube, Class C non-conductive MSHA cover in Green or Yellow
539-158	Ultrabraid Bull Hose	500psi air hose, Class C tube, Yellow Class C cover
536-589 / 598	Ultrabraid HD Plus	400psi air hose, Class A Nitrile tube, Class A Yellow or Green MSHA cover
539-156 / 157	Ultrabraid Supreme	1000psi air hose, Class A Nitrile tube, Class A Yellow or Blue high abrasion resistant MSHA cover
536-509 / 549-943	Explorer® Air	300 psi heavy-duty air hose for mining, and industrial applications
536-508 / 549-317	Explorer® Plus Air	400 psi heavy-duty air hose for mining, and industrial applications
549-285	Plicord® Super Rock Drill	500 psi extra heavy duty hose for pneumatic service in severe conditions
539-152	Super Ortac®	1000psi steel braided heavy duty multi purpose hose
535-571 / 573 / 573 / 574 / 575 / 576 / 577 / 578	Autogrip®	Premium push-on hose designed for automated applications
535-230	Insta-Grip™ TC	Low-pressure hydraulic & pneumatic systems inc. automotive applications
<b>CHEMICAL</b>		
549-014	Brown Chem-Acid Discharge	Chemrin® tube, versatile chemical discharge hose capable of handling a wide variety of industrial chemicals
546-014	Fabchem ARC	Pliosyn™ tube, Fabchem with a ARC (Abrasion-Resistant Cover) for a wide variety of industrial chemicals
546-011	Gray Chem-Acid Discharge	Weatherex® tube, versatile chemical discharge hose capable of handling a wide variety of industrial chemicals
546-067	Gray Flexwing	Weatherex® tube, versatile chemical transfer hose capable of handling a wide variety of industrial chemicals
546-064	Yellow Flexwing	Hysunite™ tube, versatile chemical transfer hose capable of handling a wide variety of industrial chemicals

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>CHEMICAL (cont)</b>		
5546-010	Yellow Chem-Acid Discharge	Hysunite™ tube, versatile chemical discharge hose capable of handling a wide variety of industrial chemicals
546-345	Viper™	Chemical hose with Beige Alphasyn® Modified XLPE tube
546-065	Fabchem™ Pliosyn™ (UHMWPE) Tube	Handles the majority of industrial chemicals. Pliosyn™ UHMWPE tube
546-666 / 541-666	Green XLPE Cross Link Polyethylene	Handles the majority of industrial chemicals. Clear Speclear® synthetic rubber XLPE tube
546-069 / 541-069	Brown Flexwing® Chemrin® (CPE) Tube	Handles a variety of acids, alcohols, salt & petroleum-based products
541-063	Orange Flexwing® Flosyn® Tube	Handles a variety of acids, alcohols, salt & petroleum-based products
546-805	Purple Flexwing®	Handles a wide range of industrial chemicals. Black Versigard® tube
546-721	Plicord® Extremelex™ Purple	Handles a wide range of industrial chemicals. Black Versigard® tube
<b>CLEANING EQUIPMENT</b>		
539-132	Neptune 2250	Pressure washer service application
539-141	Neptune 3600	Pressure washer service application
539-185 / 539-186 / 539-187	Spiraflo®	Spiral cover pressure washer hose that reduces damming
536-575 / 536-583 / 536-481	Fortress® 1000	1000 psi pressure washer hose with Microban® product protection
536-374 / 536-387 / 536-388 / 536-490	Neptune® 1500	1500 psi hose for pressure washer equipment and agriculture sprayers
539-261 / 539-266 / 539-265 / 539-262 / 539-111 / 539-265	Neptune® 4001-R	4000psi high pressure washer hose
539-091 / 124	Neptune® 4500	4500psi high pressure washer hose
539-149 / 148	Neptune® 6000	6000psi high pressure washer hose
539-095 / 110	Whitewater®	Use for Steam cleaner or pressure wash machines
536-480 / 474 / 574	Gauntlet® 1500	1500psi hose with super abrasion and oil resistant cover
539-099 / 100	Gauntlet® 3000	3000psi hose with super abrasion and oil resistant cover
539-122 / 120	Gauntlet® 4500	4500psi hose with super abrasion and oil resistant cover
539-200 / 201	Galvanator® 3000	3000 psi hose with rust-resistant reinforcement & super abrasion resistant cover
<b>FOOD</b>		
549-147	White Flextra	Lightweight, flexible hose for transferring oily and non-oily edibles under pressure on tank truck or in-plant service
549-150	White Softwall	Discharge transfer of dry or liquid foods having either oily or non-oily bases
539-404	Spectra 1000	Food washdown applications

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>FOOD (cont)</b>		
539-413	Spectra 3000	Food washdown applications
586-489	Spirathane™ PT	Polyurethane FDA ducting with static wire
549-151	White Flexwing®	Flexible White FDA food transfer hose
549-834	Plicord® Gray Food	Grey FDA food transfer hose
549-357	Gray Flextra® LT	Lightweight highly flexible hose for food transfer
549-608	Exstatic®	Dry food bulk transfer hose FDA UHMWPE (static dissipating/ conductive) tube
549-627	Harvest™	Dry food bulk transfer hose
586-416 / 421	Nutriflo® Suction & Discharge Hose	PVC hose for transfer of most liquid or dry food products
586-417 / 422	Nutriflex™ Suction & Discharge Hose	Flexible PVC hose for transfer of most liquid or dry food products
586-472	Nutriflex® Static Wire	PVC hose for transfer of most liquid or dry food products. Includes static wire
549-503	Plicord® Blue Flour	Transfer of abrasive food materials eg, flour, cake mixes etc
549-887	Plicord® Wineline®	Non-toxic hose for wine or potable water
549-885	Plicord® Brewline®	transferring non-oily liquid products in wineries and breweries
540-337	Pliovic® FG (FDA-3A)	Clear multipurpose, lightweight, reinforced tubing. FDA
542-445	Potable Water	Discharge hose for drinking water
569-020	Sani-Wash™ 300	An economical hose for hot water wash-down up to 93°C
569-021	Super Sani-Wash™ 300	An economical hose for hot water wash-down up to 93°C with Microban®
542-454 / 455 / 507	Plicord® Washdown With Optional Integral Tapered Nozzle	Plicord® Washdown hose available with optional integral rubber nozzle
536-575 / 583 / 481	Fortress® 1000	1000 psi pressure washer hose with Microban® product protection
<b>MARINE</b>		
586-454	Spiraflex Marine Bilge	PVC hose for drain, vanity, and scooper lines
586-447	Spiraflex Marine Livewell	PVC hose for head intake, discharge, and pump out service
586-439	Spiraflex Marine Sanitation FDA	PVC hose for potable water transfer
586-451	Spiraflex Marine Vacuum	PVC hose for bilge pumps or holding tank pump out service
586-444	Spiraflex Marine Vacuum FDA	PVC hose for potable water transfer
543-193 / 541-193	Plicord® Hardwall Wet Exhaust	Water suction & discharge including intake, exhaust, and toilet. Unique sizes available
543-154 / 541-154	Plicord® Softwall Wet Exhaust	Water discharge including intake, exhaust, and toilet. Unique sizes available
475-412-008 / 010 / 012 / 016	Flexshield™ SAE J1527 USCG Type A1-15 / ISO 7840 Marine Barrier Hose	For fuel feed and vent application on marine pleasure craft

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>MARINE (cont)</b>		
595-022	Marine Fuel Feed Vent Hose USCG/ SAE J1527 Type A2 Fire Retardant	For fuel feed and vent application on marine pleasure craft
595-009	Marine Fuel Feed Vent Hose USCG/ SAE J1527 Type B2 Non-Fire Retardant	For fuel feed and vent application on marine pleasure craft
<b>MATERIAL HANDLING</b>		
549-946	Concrete Vibrator Hose	Reinforced rubber sleeve for concrete vibrator
541-262	Clam Jetting	Softwall hose for underwater jetting and collection of clams
549-859	Blast Hole Slurry/Dewatering	Hardwall hose for filling blast hole with explosive
541-814	Plicord Hydrovator Red S&D	Corrugated Plioflex® cover and red natural rubber tube provide good flexibility, durability and outstanding abrasion and tear resistance
549-337	Liquid Mud Hose	Transfer Drilling Mud
549-706	Refractory Hose, 2 Plies	Refractory hose with static dissipating tube
549-863	Gunite, 4 Plies	Sand cement gunning application with static dissipation tube
586-479	Mulchblower	PVC hose for transfer of mulch products
586-477	Barkblower	PVC heavy-duty hose for transfer of wood chips
Cust Serv	Air Seeder	PVC hose for agricultural seeding applications
586-472	Nutriflex® Static Wire	PVC hose for transfer of most liquid or dry food products. Includes static wire
Cust Serv	Plicord® XF Blast	Standard duty hose for steel shot or sand blasting in cleaning or finishing
541-789 / 788 / 458	Blucor™	Pressure or suction service in the transfer of dry bulk, slurry, salt, cement or fertilizers.
604-189	Blucor™ Bolt-On Split Flange Couplings	High-tensile 432 aluminium alloy ANSI B16.5
541-400	Diversiflex™	Pressure or suction service for dry bulk, salt, cement or fertilizers. Static dissipating/conductive
541-047 / 044 / 050 / 731 / 335 / 353	Diversipipe® 75	High quality hose for replacing cast iron pipes for transfer of abrasive materials
541-362 / 364 / 360 / 372 / 350 / 369 / 380 / 366 / 373	Diversipipe® 150	High quality hose for replacing cast iron pipes for transfer of abrasive materials
541-015	Flexible Downspout	Economical choice for gravity flow service. Installation only in a vertical position
541-289	Plicord® Hydrovator™	Rugged yet lightweight hose for Hydrovac operations. Rated for full vacuum
541-290 / 177 / 081 / 316	Plicord® Dredge Sleeve	Flexible connection between discharge pipe sections of hydraulic dredges
541-290 / 177 / 081 / 316 / 107	Plicord® RVC	For use on reverse drilling rigs

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>MATERIAL HANDLING (cont)</b>		
541-267 / 268 / 265	Plicord® Sand Suction	Suction hose for hydraulic dredges
569-595	Sandblast Deadman	Double line hose for use on systems with automatic shut-off
586-407	Spirathane™ HD	For dry pneumatic conveying of solids with heavy duty abrasive conditions
586-489	Spirathane™ PT	Polyurethane FDA ducting with static wire
586-406	Spirathane™ LD	Clear polyurethane FDA hose for low-pressure blowing
549-394	Pyroflex® II Hot Air	For conveying hot air from compressors to tanks on bulk dry material carriers
549-126	Flextra® Dry Material	Static dissipating/conductive hose used to convey abrasives materials
546-068	Tan Flexwing®	For acid, alcohol base, and salt solution transfer
549-116	Tan Flextra®	Used to convey non-oily abrasive materials such as sand, limestone, plastic pellets, and dry abrasive food products
549-040	Tan Softwall	For acid, alcohol base, and salt solution transfer
549-815	Plicord® Auger ARC Piling	For use in handling a multitude of materials being pumped to concrete forms and structures
549-822	PGC Placement Textile	An economical version of our Plicord® Allcrete® Textile hose
549-862 / 863 / 865	Plicord® Gunita Tan	For the efficient transfer of sand and cement to the placement mixing gun nozzle
<b>MINING</b>		
549-229	Plicord® Cable Cover Hose	Non-conductive hose for cooling/protection of electrical cables
537-513	Spiraflex™ Yellow Heavy Duty	Layflat hose for heavy-duty applications
537-506 / 508	Brigade™ Mine	Mine fire protection hose for underground mines
549-668	Flextra® Rock Dust	For handling rock dust operations in underground mines
569-045	M&P Mine Conduit	A fabric-reinforced conduit used as an electrical cable cover in underground mine service
549-232	Plicord® Ammonium Nitrate Pellet	For pellet transfer in blasting hole loading
549-039 / 035	Plicord® Mine Conduit	Electrical cable cover. Meets MSHA standards for flame resistance
586-438	Spiraflex® Cable Guard	For use as a protective cover for supply lines. Flame-resistant MSHA approved
586-426 / 427	Spiraflex® Rock Dust	Lightweight, flexible alternative for handling rock dusting in underground mines
546-469 / 470 / 467 / 468	Tunnelcote™ Rock Dust	For use in underground mines. Corrugated or smooth cover. Optional reflective tape available
<b>PETROLEUM</b>		
532-390	LT Redwing Fuel Oil	Improved flexibility at lower temperatures
541-593	Dock Hose Nitrile FDA	Large bore hose for food products
543-485	Floater Fuel Delivery (Marathon)	Softwall fuel discharge for ship to shore transfer
541-606	Smooth Bore Hot Tar & Asphalt	Hardwall hose with a smooth reinforced line for high-temp applications

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
PETROLEUM (cont)		
541-688	Smooth Bore Molten Sulphur	Hardwall hose with a smooth reinforced liner for high-temp applications
543-142	Black Flextra II 150	Corrugated petroleum-based product transfer hose where aromatic content exceeds 50%
541-579	Plicord Rough Bore Dock	For the transfer of petroleum products between docks and ships
543-802	Plicord LW Northern Petroleum	Lighter weight petroleum-based product transfer hose where aromatic content does not exceed 50%
543-663	Infinity HD LT Petroleum Transfer	Lightweight and flexible properties with improved cold weather capabilities to -40°F /-40°C
543-509	Plicord Vapor Recovery	Recovering gasoline vapors while unloading tank trucks at service stations or loading tanks at bulk terminals
586-425	Spiraflex Vapor Recovery	PVC hose for vapor recovery
Cust Serv	Oil Rig Supply Hose	Specialized hose lines for use on offshore drilling platforms
543-738 / 541-738	Wingcraft™	For fuelling or de-fuelling. Handles jet fuel and higher aromatic aviation gasoline
543-429	Advantage™	For over and under-the-wing fuelling. Handles jet fuel up to 50% aromatic content
569-601 / 692	Deadman Aircraft Refueling	Double-line hose used for automatic shutoff of aircraft hydrant and truck refuelling systems
569-604	Refueling Sensing	Double-line hose is for use on pressurised aircraft hydrant fuelling systems
532-331 / 332 / 333 / 335	Flexsteel® Hardwall	For dispensing pump applications that require a hardwall construction
532-362	Flexsteel® Futura™ Vapor Assist	For Stage II Vacuum Assist Systems. Factory coupled assembly
532-365-440	Maxxim™ Premier	For Stage II Balance Systems. Factory coupled assembly
532-365-441 / 641	Maxxim™ Premier Plus	Incorporates a Venturi pump in the inner fuel hose coupling. Factory coupled assembly
595-015 / 017	Pacer™	Designed with a spiral textile reinforcement. UL 330 and CUL approved
595-001 / 002 / 026 / 028	Aggie Gas™	A multi-use type hose for dispensing petroleum products from farm and barrel type pumps
532-395	Arctic Softwall	Remains flexible where temperatures of -54°C are encountered. UL 330 and CUL approved
532-012 / 013	BC Gasoline	Available with one or two textile braids. UL 330 and CUL approved
532-337-124	Flexsteel® Futura® Ethan-All™	Ethanol dispensing hose assembly for up to E85. Assemblies only. UL certified
532-293	BC Marina	Marine fuel dispensing hose. UL 330 and CUL approved
541-533 / 535	Smooth Bore Dock 200	200 psi dock hose available with tube compounds to suit 50-100% aromatics
541-580 / 584	Smooth Bore Dock 300	300 psi dock hose available with tube compounds to suit 50-100% aromatics
541-426	Tanker Barge Discharge	For discharge of petroleum-based products between docks and barges

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>PETROLEUM (cont)</b>		
541-577	Thor™ Dock	250 psi hose for transfer of petroleum-based products between docks and barges
532-016	Redwing® Fuel Oil	Kink, twist and drag resistant textile braided fuel reeling hose
543-807 / 451	Arctic Extremeflex™	Extremely flexible suction and discharge hose for use down to -54°C
543-422	Flexwing Versafuel™	For transfer of petroleum, biodiesel, and ethanol products with up to 60% aromatics
543-773	Infinity™ Fuel Drop Hose	Suction & gravity hose with PVC double helix for superior flexibility, abrasion resistance
543-138	Infinity™ HD Fuel Drop Hose	HD Suction & gravity hose with PVC double helix for superior flexibility, abrasion resistance
543-109 / 110	Plicord® Flexwing® Petroleum	Suction hose for petroleum products with up to 50 aromatic content
543-227	Paladin®	Static dissipating suction hose for various petroleum products inc ethanol and biodiesel
543-123 / 120	Red Flextra®	Flexible transfer hose for various petroleum products inc ethanol and biodiesel
543-117 / 541-117	Plicord® Super Black Flexwing®	300 psi suction hose for petroleum products with up to 50 aromatic content
543-827 / 710	Plicord® Oilfield Frac	A rugged and flexible hose designed to convey crude oil and oil slurry mixtures
543-562	Plicord® LW Black Flextra II™	Extremely flexible and lightweight transfer hose for various petroleum products
543-655	Flexwing® Oilfield	For use in transfer hose service and cleaning sediment from oil storage tanks
543-691	Flextra® Oilfield	For transfer of DILUTED industrial chemicals and petroleum waste, sludge and sediments
543-650	Plicord® Arctic Flexwing®	low-temperature operations for transferring gasoline, oil and other petroleum products
543-365	LW Arctic Tank Truck	For transfer of petroleum-based products under suction, discharge or gravity flow. -54°C
549-853	Plicord® Waste Mate™	For transfer of DILUTED industrial chemicals and petroleum waste, sludge and sediments
586-465 / 468	Spiraflex® Polyurethane Vapor Recovery	Vapor recovery hose for tank truck and loading/unloading points
<b>STEAM</b>		
539-095 / 110	Whitewater®	Use for Steam cleaner or pressure wash machines
539-486	Flexsteel® 250 EPDM-20	250 psi steam hose to 232°C. Safety factor 20:1
539-176 / 581-176 / 539-170	Flexsteel® 250 CB Steam	High strength steam hose
541-461 / 460	Heavy Duty Steam Pile Driver	Tough off-shore pile driving applications
539-670	MIL-DTL-29210E Steam Hose	Steam hose assembly for Military applications

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>VACUUM</b>		
586-407	Spirathane™ HD	For dry pneumatic conveying of solids with heavy duty abrasive conditions
586-406	Spirathane™ LD	Clear polyurethane FDA hose for low-pressure blowing
586-489	Spirathane™ PT	Polyurethane FDA ducting with static wire
586-429	Spiraflex® Grassvac™	For lawn, leaf, mulch and yard waste collection
586-408	Spiraflex® Ducting	Versatile ducting for leaf collection, air conditioning and heating applications
549-222 / 541-222	Plicord® HD Industrial Vacuum	For handling exhaust acid fumes and abrasive dust from grinding machines
549-208 / 541-208 / 549-207	Plicord® Vacuum	For handling exhaust acid fumes and abrasive dust from grinding machines
<b>WATER</b>		
586-452	Premier	Medium-duty suction and discharge hose for use in agricultural, construction and general industrial service
542-157	Plicord Contractors S&D	Water suction & discharge hose, SBR tube and cover
542-547	Jetting & Utility	High pressure water service
542-445	Potable Water 150 psi	Potable water, white natural FDA tube
542-162	Plicord Water Discharge-300 psi	General purpose water discharge hose for heavier duty applications
542-322	Plicord Water & Suction-300 psi	General purpose water S&D hose for heavier duty applications
537-512	Spiraflex 3000 (black)	PVC Layflat for wheel line irrigation service
537-506 / 508	Brigade™ Mine	Mine fire protection hose for underground mines
542-445	Potable Water	Discharge hose for drinking water
Cust Serv	Spiraflex® Black Lay-Flat Super Duty Hose	Premium heavy duty lay-flat hose with through-the-weave fabric reinforcement
537-555	Spiraflex® Gray Light Duty	Light duty grey lay-flat hose
537-513	Spiraflex® Yellow Heavy Duty	For heavy-duty applications in mining, agriculture, construction and marine service
569-027	Pathfinder® Garden Hose	For in-home, garden, smaller plant and commercial property applications
542-527	Plicord® Versiflo® 125	For medium-duty water discharge service
542-438 / 541-438	Plicord® Water Discharge 150	For use in heavy-duty service for a wide range of applications
586-518	Cold Blue™	A lightweight, medium-duty water suction and discharge hose
586-551	Green Hornet™ XF	Medium-duty, light-weight suction hose
586-411	Spiraflex® 1600	For water suction and discharge service in septic tank cleaning operations
586-453	Spiraflex® Aggie PVC	A general-purpose water suction and discharge hose
542-249 / 541-249	Flexwing® Water S&D	A general-purpose water suction and discharge hose

## ADDITIONAL PRODUCTS

ADDITIONAL NON-STOCK SPECIFICATIONS		
ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>WATER (cont)</b>		
542-528 / 541-528	Versiflo® 150 Water S&D	A general-purpose water suction and discharge hose. Medium to heavy-duty
536-575 / 583 / 481	Fortress® 1000	1000 psi pressure washer hose with Microban® product protection
536-480 / 474 / 574	Gauntlet® 1500	1500psi hose with super abrasion and oil resistant cover
569-048 / 049	Sureline®	For a wide range of applications in which a general-service water hose is needed
542-454 / 455 / 507	Plicord® Washdown	A general-service water hose is needed
542-452	Pulp & Paper Washdown	Heavy-duty water discharge hose where kink resistance is important
569-020	Sani-Wash™ 300	An economical hose for hot water wash-down up to 93°C
569-021	Super Sani-Wash™ 300	An economical hose for hot water wash-down up to 93°C with Microban®
<b>WELDING</b>		
569-588	Gemini® Twin Line Welding Grade R - Type VD	Meets RMA IP-7 standard for Grade R welding hose
569-598	Gemini® Twin Line Welding Grade RM - Type VD	Meets RMA IP-7 standard for Grade RM welding hose. Non-conductive
569-618	Gemini® Twin Line Welding Grade T - Type VD	Meets RMA IP-7 and CGA E-1 standards for Grade T welding hose. Non-conductive
569-591 / 592	Single Line Welding Grade R	Meets RMA IP-7 standard for Grade R welding hose
569-589 / 590	Single Line Welding Grade RM	Meets RMA IP-7 standard for Grade RM welding hose
569-619 / 620	Single Line Welding Grade T	Meets RMA IP-7 and CGA E-1 standards for Grade T welding hose. Non-conductive
<b>GASOLINE DISPENSING</b>		
532-388	Hardwall Dispensing - Europe	Wire braid gasoline dispensing, meets European Standard EN 1360
532-387	Textile Dispensing - Australian	Textile braid gasoline dispensing, meets Australian Standard AS 2683
532-357	Hardwall Dispensing - Australian	Wire braid gasoline dispensing, meets Australian Standard AS 2683
586-425	Spiraflex Vapor Recover	PVC hose for vapor recovery
<b>SPECIAL APPLICATION</b>		
541-219	Fish Suction	Heavy-duty hardwall hose with an abrasive liner
541-320	Furnace coolant hose	Large diameter hose for water cooling in blast furnaces
Cust Serv	Manure line hose	Delivery of manure from holding tanks to field
542-956	Radiator Hose (Standard)	Coolant hose, EPDM tube, EPDM cover, 2 plies
542-957	Radiator Hose (Heavy Duty)	Coolant hose, EPDM tube, EPDM cover, 4 plies
541-843	Plicord® Paper Machine Suction Box	Flexible connection on the suction box of paper machines

## ADDITIONAL PRODUCTS

### ADDITIONAL NON-STOCK SPECIFICATIONS

ORDER CODE	HOSE DESCRIPTION	APPLICATION
<b>SPECIAL APPLICATION (cont)</b>		
541-301	Plicord Leaf Collector	For street cleaning equipment to remove debris
542-683	Plicord Roof Drain - Nitrile	Handling rainwater drainage from floating tank roof
542-901	Plicord Roof Drain - Viton®	Handling rainwater drainage from floating tank roof
Cust Serv	Air Seeder	PVC hose for agricultural seeding applications
586-402	PVC Fish Suction	PVC hose for transfer of fish
549-806	Irrigation pivot joint (boot)	Flexible joint for joining piping
586-476	Fire Engine Suction	PVC hose for water transfer service (clear with black helix)
536-461	Freon Charging GY5	Air-conditioning refrigeration hose (colours: blue/red/yellow)
536-303	Freon Charging All Rubber	Air-conditioning refrigeration hose (colours: blue/red/yellow)
536-486	Divers Hose High Pressure	High pressure diving hose application
536-451	Divers Hose High Pressure	Low pressure diving hose application
<b>MILITARY</b>		
569-536	ZZ H 500	General shop service pneumatic hose
569-567	ZZ H 601E	General water & potable water discharge service
Cust Serv	ZZ H 601E	General water & potable water discharge service
543-811	Mil PRF 370H Type A	Fuel transfer standard collapsible
543-760	Mil PRF 370H Type B	Fuel transfer standard noncollapsible
543-552	Mil DTL-6615 Type I	Fuel transfer hose with low-temperature capability, with electrical bond
543-553	Mil DTL-6615 Type II	Fuel transfer hose with low-temperature capability, without electrical bond
Cust Serv	ZZ H 561K	Water suction & discharge hose
543-766	Mil H 22240F Type A	Lightweight fuel hose for alongside service
543-769	Mil H 22240F Type C	Lightweight fuel/water discharge hose for alongside service
Cust Serv	Mil PRF 11588G	Fuel discharge hose style ST only
Cust Serv	Mil H 82127 Type A	Fuel discharge hose for aviation gasoline, diesel, and automotive fuels
549-749	Mil H 24136/4	Sound attenuation hose
547-855	Mil H 8788C	For use in hydraulic systems
536-341	Mil H 24580SH	Onboard ship firefighting hose
<b>COUPLING SYSTEMS</b>		
539-173-538-24000	NPTF Male Solid 1/4"	One-piece pressure washer hose crimp fitting
539-173-538-22800	NPTF Male Solid 3/8"	One-piece pressure washer hose crimp fitting
539-173-538-23600	NPTF Male Swivel 1/4"	One-piece pressure washer hose crimp fitting

## ADDITIONAL PRODUCTS

### ADDITIONAL NON-STOCK SPECIFICATIONS

ORDER CODE	HOSE DESCRIPTION	APPLICATION
WATER (cont)		
539-173-538-22900	NPTF Male Swivel 3/8"	One-piece pressure washer hose crimp fitting
539-173-538-23800	22mm Power Wash	On-piece [pressure washer hose crimp fitting (outlet)





**29.00**

**APPENDIX B**



## CHEMICAL CHARTS

### Goodyear® ENGINEERED PRODUCTS CHEMICAL RESISTANCE CHARTS

#### RATINGS AND DEFINITIONS

The Goodyear® Engineered Products Chemical Resistance Chart is to be used as a guide only.

- A** The chemical is expected to have minor or no effect on the product. Product may be used for continuous service. Changes in working conditions, such as concentration of the chemical or temperature, may affect product performance and cause degradation of the product.
- B** The product may be used for continuous or intermittent service, however the product properties will be affected by the exposure to the chemical. Changes in working conditions, such as concentration of the chemical or temperature, may affect product performance and cause degradation of the product.
- X** The product should not be used with this chemical.
- I** Insufficient or no data available for this chemical. Further testing is recommended to determine compatibility of the chemical with the product.

**Caution:** Unless otherwise specified, the ratings applied to tube stocks are based on fully concentrated or saturated solutions at 100°F under normal service conditions.

**Note:** Hose ratings are for the effect on the polymer only. The degree of resistance of a rubber compound to a specific chemical depends on many variables such as temperature, concentration, length of exposure, stability of chemical, etc. For a specific compound, many grades of polymers are available which can alter the compound's chemical resistance.

**WHEN IN DOUBT**, before using a specific product, contact your local Goodyear® Engineered Products Sales Representative for assistance if unusual service conditions or high temperatures are present in the product application.

**THIS CHEMICAL RESISTANCE CHART SUPERSEDES ALL PREVIOUSLY PUBLISHED INFORMATION REGARDING Goodyear® ENGINEERED PRODUCTS CHEMICAL HOSE RESISTANCE RATINGS.**

## CHEMICAL CHARTS

Common Name & Description	Veyance Technologies, Inc. Trade Name	Goodyear® Engineered Products Examples with Polymer in the Tube
UHMWPE (Ultra High Molecular Weight Polyethylene)	Pliosyn™	Fabchem™
Butyl (Isobutylene and Isoprene)	Weatherex®	Gray Flexwing®
Hypalon® (Chlorosulfonated Polyethylene)	Hysunite™	Yellow Flexwing®
NR - Natural Rubber (Isoprene, natural)	Pureten™	Tan Flexwing®
Viton®	Flosyn®	Orange Flexwing®
Nitrile		Flexwing® Petroleum
CPE (Chlorinated Polyethylene)	Chemrin®	Brown Flexwing®, ExtremeFlex™ Brown
EPDM (Ethylene Propylene Diene)	Versigard®	Purple Flexwing®, ExtremeFlex™ Purple
EPDM (Heat Resistant)	Pyrosyn®	Flexsteel® 250 Steam, Whitewater®
Cross-Link Polyethylene (XLPE)	Speclar®	Blue Flexwing®, Green XLPE
Alphasyn® (Modified Cross-Link Polyethylene)	Alphasyn®	Viper™
Teflon®		Hi-Pe®
316 Stainless Steel		Insta-Lock™
Aluminum		Insta-Lock™
Brass		Insta-Lock™

Caution: This chart and the following chemical resistance charts are intended to reflect the various tube compounds as they pertain to Goodyear® Engineered Products petroleum and chemical hose. Always use a Goodyear® Engineered Products petroleum or chemical hose when the hose is to be used for conveyance of petroleum or chemicals. Consult the following pages for chemical compatibility of the various tube stocks.

Hypalon® is a registered trademark of DuPont Dow Elastomers L.L.C.

Viton® is a registered trademark of DuPont Dow Elastomers L.L.C.

Teflon® is a registered trademark of E.I. du Pont de Nemours and Company.

Versigard® is a registered trademark of The Goodyear® Tire and Rubber Company.

## CHEMICAL CHARTS

This chemical chart is offered as a guide only. There are many variables to be considered with each application. Ratings are for tube polymer only! For explanation of ratings see the initial page of these Chemical Charts in Appendix B. Contact customer services for chemicals or polymers not listed at 800-235-4632.

		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING			
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER												METAL			
A																	
Acetaldehyde	100	B	B	X	X	X	X	I	A	A	A	A	A	B	X	TS	
Acetic Acid, Conc.	100	A	A	X	B	X	X	A	A	A	A	A	A	B	X	T	
Acetic Acid, Dilute 10	150	B	A	X	A	X	X	A	A	A	A	A	A	I	X	TVN	
Acetic Acid, Glacial	100	A	B	X	X	X	X	A	A	A	A	A	A	B	X	TS	
Acetic Aldehyde	100	A	B	X	X	X	X	I	A	A	A	A	A	B	X	T	
Acetic Anhydride	100	B	A	B	X	X	X	A	A	A	A	A	A	B	X	TS	
Acetic Ester	100	B	B	X	X	X	X	B	A	A	A	A	A	A	A	TV	
Acetic Ether	100	B	B	X	X	X	X	B	A	A	A	A	A	A	A	T	
Acetic Oxide	100	B	A	B	X	X	X	A	A	A	A	A	A	B	X	T	
Acetone	100	A	A	X	B	X	X	A	A	A	A	A	A	A	I	T	
Acetone Cyanohydrin	100	B	A	X	X	X	X	A	A	A	A	A	I	I	I	TS	
Acetyl Acetone	100	B	B	X	X	X	X	B	I	A	A	A	I	B	I	T	
Acetyl Chloride	100	B	X	X	X	B	X	A	B	B	A	A	B	X	A	TV	
Acetyl Oxide	100	B	A	B	X	X	X	A	A	A	A	A	A	B	X	T	
Acetylene (dry)	100	A	A	A	A	A	A	A	A	A	X	A	A	I	I	TVBNS	
Acetylene Dichloride	100	B	X	X	X	A	X	I	I	A	X	A	I	A	X	TV	
Acetylene Tetrachloride	100	B	X	X	X	A	X	I	I	A	I	A	A	X	X	TV	
Acrolein	100	B	A	B	B	A	B	I	I	A	A	A	I	I	I	TV	
Acrylic Acid	100	B	X	X	X	A	X	X	X	A	A	A	A	I	I	TV	
Acrylonitrile	100	B	X	X	X	X	X	A	X	B	A	A	A	X	I	T	
Alk-Tri	100	I	X	X	X	A	X	I	I	A	I	A	A	I	I	TV	
Allyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	A	TBN	
Allyl Bromide	100	B	X	X	X	B	X	B	I	B	I	A	I	I	I	T	
Allyl Chloride	100	B	X	X	X	B	X	B	X	B	I	A	A	X	X	TS	
Alum	150	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBNS	
Aluminum Acetate	100	A	A	A	X	X	X	A	A	A	A	A	A	I	X	T	
Aluminum Chloride	150	A	A	A	A	A	A	A	A	A	A	A	A	I	I	TVB	
Aluminum Formate	100	A	B	X	X	X	X	I	I	A	A	A	I	I	I	T	
Aluminum Hydroxide	150	A	A	B	A	X	B	A	A	A	A	A	A	I	X	TS	
Aluminum Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Aminoethanol	100	A	A	B	B	I	B	A	I	A	A	A	A	B	I	TBN	
Aminoethylethanolamine	100	A	A	B	B	I	B	A	I	A	A	A	I	I	I	T	
Ammonia	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															



## CHEMICAL CHARTS

This chemical chart is offered as a guide only. There are many variables to be considered with each application. Ratings are for tube polymer only! For explanation of ratings see the initial page of these Chemical Charts in Appendix B. Contact customer services for chemicals or polymers not listed at 800-235-4632.

		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING		
		HOSE TUBE POLYMER												METAL		
		UHMWPE	Butyl	Hyalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket
		Temperature (°F)														
		RATING SCALE														
		GASKET														
		B														
Barium Carbonate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBN
Barium Chloride	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBN
Barium Hydroxide	150	A	A	A	A	B	A	A	A	A	A	A	A	X	X	TBNS
Barium Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	B	A	X	TVBS
Barium Sulfide	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBS
Benzal Chloride	100	A	B	I	I	I	X	X	I	A	I	A	B	X	I	T
Benzaldehyde	100	A	B	X	X	X	X	X	B	A	B	A	A	B	I	T
Benzene (Benzol)	100	A	X	X	X	A	X	X	X	B	B	A	A	A	A	T V
Benzine (Ligroin)	100	A	X	X	X	A	A	I	X	A	B	A	A	A	I	TVB
Benzine Solvent (Ligroin)	100	A	X	X	X	A	A	I	X	A	I	A	A	A	I	TVBS
Benzoic Acid	100	A	B	B	X	I	I	A	B	A	A	A	B	B	X	TVN
Benzoic Aldehyde	100	A	B	X	X	X	X	X	B	A	I	A	A	I	B	T
Benzotrichloride	100	X	I	I	I	I	X	X	X	X	X	A	I	I	I	T
Benzoyl Chloride	100	X	I	I	I	I	X	X	X	B	X	A	B	I	I	T
Benzyl Acetate	100	A	A	B	X	X	X	B	I	A	B	A	B	I	I	T
Benzyl Alcohol	100	A	A	X	X	A	X	A	X	A	A	A	A	B	I	TVS
Benzyl Chloride	100	A	X	X	X	A	X	X	X	A	I	A	A	X	X	T V
Bichromate of Soda	150	A	A	X	I	I	I	I	I	A	A	A	I	I	I	T
Black Sulfate Liquor	150	A	X	B	B	B	B	A	B	A	A	A	A	X	X	TVBN
Black Sulfate Liquor	275	X	X	X	X	X	X	A	X	X	X	A	A	X	X	T
Bleach	100	X	B	X	X	B	X	I	A	X	B	A	X	X	X	T V
Brine	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBNS
Bromine	100	X	X	X	X	B	X	I	X	X	X	A	X	X	X	T V
Bromo Benzene	100	B	X	X	X	B	X	X	X	X	X	A	I	I	I	T V
Bromo Toluene	100	X	X	X	X	B	X	X	X	X	X	A	I	I	I	T
Bromochloromethane	100	X	B	X	X	B	X	X	I	X	A	A	A	X	X	T
Bunker C.	100	B	X	X	X	A	A	I	X	A	B	A	A	I	I	TVB
Bunker Oil	100	B	X	X	X	A	A	I	X	X	B	A	A	I	I	TVB
Butanol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TBN
Butyl (Normal) Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TBN
Butyl (Secondary) Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TBN
Butyl Acetate	100	A	A	B	X	X	X	B	B	A	B	A	A	B	I	T
Butyl Acetoacetate	100	A	X	X	X	X	X	X	I	A	B	A	I	I	I	T

# CHEMICAL CHARTS

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING				
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock	
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER												METAL				
		Temperature (°F)																
<b>B</b>		Butyl Acrylate	100	B	X	X	X	X	X	B	X	B	B	A	I	I	I	T
		Butyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	TBN
		Butyl Aldehyde	100	A	B	X	X	X	X	B	X	A	B	A	X	A	X	T
		Butyl Amine	100	A	B	X	X	X	X	B	X	A	B	A	A	A	I	T
		Butyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	I	I	I	TV
		Butyl Benzl Phthalate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T
		Butyl Bromide	100	B	X	X	X	B	X	X	X	B	B	A	I	I	I	T
		Butyl Butyrate	100	B	X	X	X	X	X	X	I	B	I	A	I	I	I	TV
		Butyl Carbitol	100	A	A	A	X	I	X	A	B	A	A	A	I	I	I	T
		Butyl Cellosolve	100	A	A	A	X	X	X	A	A	X	A	A	A	A	X	T
		Butyl Chloride	100	B	X	X	X	A	X	X	I	B	I	A	B	I	I	TV
		Butyl Ether	100	A	X	B	X	X	B	A	X	A	A	A	A	I	I	T
		Butyl Ethyl Acetaldehyde	100	A	B	X	X	X	X	I	I	A	B	A	I	I	I	T
		Butyl Ethyl Ether	100	A	X	B	X	I	B	I	X	A	A	A	I	I	I	T
		Butyl Phthalate	100	A	A	X	X	X	X	I	I	A	A	A	A	A	I	T
		Butyl Stearate	100	A	X	X	X	I	A	B	X	A	B	A	A	A	A	TBS
		Butylate	100	A	I	I	I	I	I	I	A	I	I	I	I	I	I	I
		Butyraldehyde	100	A	B	X	X	X	X	B	X	A	B	A	X	A	X	T
		Butyric Acid	100	A	X	B	X	I	X	A	B	A	A	A	A	B	I	T
		Butyric Anhydride	100	A	X	B	X	I	X	I	I	A	I	A	I	I	I	T
<b>C</b>		Cadmium Acetate	100	A	A	A	X	X	X	A	I	A	A	A	I	I	I	T
		Calcium Acetate	100	A	A	A	X	X	X	A	A	A	A	A	A	I	I	T B
		Calcium Aluminate	100	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVB
		Calcium Bichromate	150	X	A	X	I	I	I	I	I	X	I	A	I	I	I	T
		Calcium Bisulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBN
		Calcium Bisulfite	150	A	A	A	A	A	A	A	A	I	A	A	A	X	X	TVBNS
		Calcium Carbonate	150	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBNS
		Calcium Chloride	150	A	A	A	A	A	A	A	A	A	A	A	B	X	X	TVBNS
		Calcium Hydroxide (Caustic Lime)	100	A	A	B	A	X	B	A	A	A	A	A	X	X	X	TNS
		Calcium Hypochlorite	100	B	B	X	X	B	X	A	B	X	A	A	A	X	X	T V
		Calcium Nitrate	150	A	A	A	A	A	A	A	A	A	A	A	B	X	X	TVBN
		Calcium Silicate	150	A	A	A	A	A	A	A	A	A	A	A	I	A	I	TVBN

## CHEMICAL CHARTS

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING				
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PCR®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER												METAL				
C																		
Temperature (°F)																		
Calcium Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	A	I	I		TVBS
Calcium Sulfhydrate	100	A	A	A	A	A	A	A	A	A	A	A	A	I	I	I		TVB
Calcium Sulfide	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X		TVBN
Calcium Sulfite	150	A	A	A	X	A	A	A	A	A	A	A	A	B	B	X		TVBNS
Caprylic Acid	100	A	X	B	X	I	X	A	I	A	A	A	B	I	X			T
Carbitol	100	A	A	A	X	I	X	A	A	A	A	A	B	A	X			T
Carbitol Acetate	100	A	B	B	X	I	X	I	I	A	A	A	I	I	I			T
Carbolic Acid, Phenol	100	A	A	X	X	A	X	A	X	A	B	A	A	B	A			TV
Carbon Dioxide	100	A	A	A	A	A	A	A	A	A	A	A	A	B	I			TVBNS
Carbon Disulfide	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Carbon Tetrachloride	100	B	X	X	X	A	X	X	X	A	B	A	A	I	I			TV
Carbonic Acid	100	A	A	A	A	A	A	A	A	A	A	A	A	B	B			TVBS
Casinghead Gasoline	100	B	X	X	X	A	A	B	X	B	B	A	I	I	I			TVB
Caster Oil (Castor Oil)	100	A	A	A	X	A	A	A	A	A	A	A	A	A	I			TVBS
Caustic Potash	150	A	A	B	A	X	B	A	B	A	A	A	A	X	X			T
Caustic Soda	150	A	A	B	A	X	B	A	A	A	A	A	A	X	X			TNS
Cellosize	100	A	A	X	X	I	X	I	I	A	A	A	I	I	I			T
Cellosolve	100	A	A	A	X	X	X	I	A	A	A	A	A	A	X			T
Cellosolve Acetate	100	A	B	B	X	X	X	X	B	A	A	A	A	I	X			T
Chloracetic Acid	100	A	X	X	B	X	X	A	X	A	A	A	A	X	X			T
Chlorinated Solvents	100	B	X	X	X	A	X	B	X	A	I	A	B	X	A			TV
Chlorine (Dry) (Gas)	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Chlorine (Wet)	100	X	X	X	X	B	X	X	X	X	X	A	X	X	X			TV
Chloroacetone	100	A	I	X	X	X	X	X	X	A	I	A	A	X	X			T
Chlorobenzene	100	B	X	X	X	A	X	X	X	A	B	A	A	B	I			TV
Chlorobenzol	100	A	X	X	X	A	X	I	X	A	B	A	A	B	I			TV
Chlorobutane	100	X	X	X	X	A	X	X	I	X	I	A	I	I	I			TV
Chloroethylbenzene	100	A	X	X	X	A	X	I	X	A	I	A	I	I	I			TV
Chloroform	100	B	X	X	X	B	X	X	X	X	B	A	A	B	I			TV
Chloropentane	100	A	X	X	X	A	X	X	X	A	I	A	A	X	I			TV
Chlorophenol	100	A	X	X	X	B	X	X	X	X	B	A	I	I	I			TV
Chloropropanone	100	A	I	X	X	X	X	X	X	A	I	A	I	I	I			T
Chlorosulfonic Acid	100	X	X	X	X	X	X	I	X	X	X	A	B	X	X			T

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING			
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER												METAL			
		Temperature (°F)															
		C															
Chlorothene	100	X	X	X	X	A	X	I	X	A	I	A	A	I	I	T	V
Chlorotoluene	100	X	X	X	X	A	X	X	X	X	I	A	A	I	I	T	V
Chlorpyrifos	100	I	I	I	I	I	I	I	X	I	I	I	I	I	I	I	I
Chromic Acid 25%	100	B	X	B	X	I	X	A	X	X	B	A	B	X	X	T	V
Coal Oil	100	A	X	X	X	A	A	A	X	A	A	A	A	X	A	TVB	
Coal Tar	100	A	X	X	X	A	X	B	X	A	A	A	A	I	I	TVS	
Coal Tar Naptha	100	A	X	X	X	A	X	B	X	A	A	A	A	A	I	T	V
Copper Chloride	100	A	A	A	X	A	A	A	A	A	A	A	X	X	X	TVBNS	
Copper Hydrate	100	A	A	B	X	X	B	I	I	A	A	A	I	I	I	T	B
Copper Hydroxide	100	A	A	B	X	X	B	I	I	A	A	A	I	I	I	T	B
Copper Nitrate	100	A	A	A	X	A	A	A	A	A	A	A	A	X	X	TVBNS	
Copper Nitrite	100	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVB	
Copper Sulfate	100	A	A	A	X	A	A	A	A	A	A	A	A	X	X	TVBNS	
Copper Sulfide	100	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVB	
Creosols	100	A	A	X	X	A	X	A	X	A	B	A	A	I	X	T	V
Creosote	100	A	X	X	X	A	B	I	X	A	B	A	A	I	I	T	V
Cresylic Acid	100	A	A	X	X	I	X	X	X	A	I	A	A	B	X	T	V
Crotonaldehyde	100	A	A	X	X	X	X	A	I	A	A	A	I	I	I	T	
Crude Oil	100	A	X	X	X	A	A	B	X	A	B	A	A	A	I	TVB	
Cumene	100	A	X	X	X	A	X	X	X	A	B	A	I	I	I	T	V
Cupric Carbonate	100	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVBN	
Cupric Chloride	100	A	A	A	X	A	A	A	A	A	A	A	B	X	I	TVBNS	
Cupric Nitrate	100	A	A	A	X	A	A	A	A	A	A	A	B	I	I	TVBN	
Cupric Nitrite	100	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVB	
Cupric Sulfate	100	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVBNS	
Cyclohexane	100	A	X	X	X	A	B	A	X	A	B	A	A	B	X	T	V
Cyclohexanol	100	A	X	X	X	B	B	A	X	A	B	A	A	X	X	TVB	
Cyclohexanone	100	A	X	X	X	X	X	X	X	A	B	A	A	I	I	T	
Cyclopentane	100	A	X	X	X	A	B	B	X	A	B	A	I	I	I	TVN	
Cyclopentane, methyl	100	A	X	X	X	A	B	I	X	A	B	A	I	I	I	T	V
Cyclopentanol	100	A	X	X	X	B	B	A	X	A	A	A	I	I	I	TVB	
Cyclopentanone	100	A	X	X	X	X	X	X	X	A	B	A	I	I	I	T	

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		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER												METAL			
D	Temperature (°F)																
D.D.T. in Kerosene	100	A	X	X	X	A	A	A	X	A	B	A	I	I	A	TVB	
D.M.P.	100	X	X	X	X	X	X	X	X	X	A	A	A	I	I	TV	
Decalin®	100	X	X	X	X	A	X	X	X	A	X	A	I	I	I	TV	
Decanol	100	A	A	A	X	B	A	A	A	A	A	A	I	I	I	TB	
Decyl Alcohol	100	A	A	A	X	B	A	A	A	A	A	A	I	I	I	TB	
Decyl Aldehyde	100	A	X	X	X	X	X	I	I	A	B	A	I	I	I	T	
Decyl Butyl Phthalate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T	
Denatured Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	B	A	TB	
Diacetone Alcohol	100	A	A	B	B	X	X	A	X	A	A	A	A	I	I	T	
Diamyl Phenol	100	A	X	X	X	A	X	A	X	A	I	A	I	I	I	TV	
Diamylamine	100	A	A	X	B	I	B	A	I	A	B	A	I	I	I	TB	
Diamylene	100	A	X	X	X	A	X	B	X	A	B	A	I	I	I	TV	
Dibenzyl Ether	100	A	B	X	X	I	X	X	X	A	B	A	A	A	X	T	
Dibromobenzene	100	B	X	X	X	A	X	I	X	A	I	A	I	I	I	TV	
Dibutyl Amine	100	A	X	X	B	X	B	A	X	A	A	A	I	I	I	T	
Dibutyl Ether	100	A	X	B	X	X	X	A	X	A	A	A	A	A	X	T	
Dibutyl Phthalate	100	A	A	X	X	X	X	X	A	A	A	A	A	A	I	TV	
Dibutyl Sebacate	100	A	A	X	X	X	X	B	X	A	I	A	I	I	I	TVS	
Dicalcium Phosphate	100	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVB	
Dicamba	100	A	I	I	I	I	I	I	A	A	I	A	I	I	I	T	
Dichloroacetic Acid	100	A	X	X	B	X	X	B	I	A	I	A	I	I	I	T	
Dichlorobenzene	100	A	X	X	X	A	X	X	X	A	B	A	A	B	I	TV	
Dichlorobutane	100	A	X	X	X	A	X	X	X	A	I	A	I	I	I	TV	
Dichlorodifluoromethane	100	I	X	X	X	B	B	I	X	I	X	A	I	I	I	TVB	
Dichloroethane	100	A	X	X	X	A	X	X	X	A	A	A	I	A	I	TV	
Dichloroethyl Ether	100	A	X	X	X	I	X	B	X	A	B	A	I	I	I	T	
Dichloroethylene	100	X	X	X	X	A	X	I	I	X	X	A	I	A	X	TV	
Dichlorohexane	100	A	X	X	X	A	X	X	X	A	A	A	I	I	I	TV	
Dichloropentane	100	A	X	X	X	A	X	X	X	A	B	A	I	I	I	TV	
Dichloropropane	100	A	X	X	X	A	X	X	X	B	I	A	A	X	I	TV	
Diesel Oil	150	A	X	X	X	A	A	A	X	A	B	A	A	A	I	TVB	
Diethanol Amine	100	A	A	X	B	I	B	A	I	A	A	A	A	I	I	T	
Diethyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	I	I	I	TV	

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE													FITTING				
		HOSE TUBE POLYMER											METAL						
		UHMMPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket			
		HOSE TUBE POLYMER											METAL						
D	Temperature (°F)	Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing	ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
Diethyl Carbinol	100	A	A	A	A	B	A	I	I	A	A	A	I	I	I	I	TBN		
Diethyl Ketone	100	A	B	X	X	X	X	X	X	A	B	A	I	I	I	I	T		
Diethyl Oxalate	100	A	B	X	B	I	X	A	X	A	B	A	I	I	I	I	T		
Diethyl Phthalate	100	A	A	X	X	X	X	B	X	A	B	A	I	I	I	I	T		
Diethyl Sebacate	100	A	A	X	X	X	X	B	X	A	B	A	A	A	I	I	T		
Diethyl Sulfate	100	A	B	X	X	X	X	A	I	A	A	A	X	I	I	I	TNS		
Diethyl Triamine	100	A	A	X	B	I	B	A	I	A	A	A	I	I	I	I	T B		
Diethylamine	100	A	A	X	B	I	B	B	B	A	B	A	A	I	X	T B			
Diethylene Dioxide	100	A	B	X	X	X	X	B	A	A	A	A	X	X	X	T			
Diethylene Glycol	100	A	A	A	A	A	A	X	A	A	A	A	A	B	A	TVBN			
Diethylene Triamine	100	A	A	X	B	I	B	A	I	A	A	A	I	I	X	T			
Dihydroxydiethyl Ether	100	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVBN			
Dihydroxyethyl Amine	100	A	A	X	B	I	B	A	I	A	A	A	I	I	I	T B			
Diisobutyl Ketone	100	A	B	X	X	X	X	I	B	A	B	A	I	I	I	T			
Diisobutylene	100	A	X	X	X	A	A	X	X	A	B	A	A	I	I	TVB			
Diisooctyl Adipate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T			
Diisooctyl Phthalate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T			
Diisocyanate	100	X	X	X	X	X	X	X	X	X	B	A	I	I	I	T			
Diisodecyl Adipate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T			
Diisodecyl Phthalate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T			
Diisopropanol Amine	100	A	A	X	B	I	B	I	I	A	B	A	I	I	I	T B			
Diisopropyl Amine	100	A	A	X	B	I	B	I	I	A	B	A	I	I	I	T B			
Diisopropyl Ether	100	A	X	B	X	I	B	I	X	A	B	A	A	I	I	T B			
Diisopropyl Ketone	100	A	B	X	X	X	X	I	B	A	B	A	A	A	I	T			
Dilauryl Ether	100	A	I	B	X	I	B	I	I	A	B	A	I	I	I	T B			
Dimethyl Amine	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																	
Dimethyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	A	I	I	TV			
Dimethyl Ether	100	A	X	B	X	I	B	I	X	B	B	A	I	I	I	T B			
Dimethyl Ketone	100	A	A	X	B	X	X	A	A	B	A	A	A	A	I	T			
Dimethyl Phenol	100	A	X	X	X	A	X	I	X	A	A	A	I	I	I	TV			
Dimethyl Phthalate	100	A	A	X	X	X	X	A	B	A	A	A	A	I	I	TV			
Dimethyl Sulfate	100	A	B	X	X	X	X	A	I	A	A	A	I	I	I	T			
Dimethyl Sulfide	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																	

## CHEMICAL CHARTS

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING					
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing	ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket			
		HOSE TUBE POLYMER												METAL					
		Temperature (°F)																	
D																			
Dimethyl Carbinol	100	A	A	A	A	B	A	A	A	A	A	A	A	A	I	I	I	I	TBNS
Dinitrobenzene	100	A	X	X	X	A	X	I	I	A	B	A	I	I	I	I	I	I	TV
Diocetyl Adipate	100	A	A	X	X	X	X	X	B	A	I	A	I	I	I	I	I	I	T
Diocetyl Amine	100	A	A	X	B	I	B	I	I	A	B	A	I	I	I	I	I	I	T
Diocetyl Phthalate	100	A	B	X	X	A	X	X	X	A	A	A	A	I	I	I	I	I	TV
Diocetyl Sebacate	100	A	A	X	X	X	X	X	B	A	I	A	I	I	I	I	I	I	TV
Dioxane	100	A	B	X	X	X	X	B	X	A	A	A	A	I	I	I	I	I	T
Dioxolane	100	A	X	X	X	I	X	B	X	A	B	A	I	I	I	I	I	I	T
Diphenyl Phthalate	100	A	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	T
Dipropyl Ketone	100	A	B	X	X	X	X	X	I	A	A	A	I	I	I	I	I	I	T
Dipropylamine	100	A	A	X	B	I	B	B	I	A	A	A	I	I	I	I	I	I	T
Dipropylene Glycol	100	A	A	A	A	A	A	A	I	A	A	A	I	I	I	I	I	I	TVB
Disodium Phosphophate	100	A	A	A	A	I	A	A	I	A	A	A	A	I	B	I	I	I	TB
Divinyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	I	I	I	I	I	I	TV
Dodecyl Benzene	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	I	I	I	TV
Dodecyl Toluene	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	I	I	I	TV
Dow-Per	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	I	I	I	TV
Dowtherm® A	100	A	I	X	X	A	X	X	X	A	A	A	I	A	I	I	I	I	TV
Dowtherm® E	100	A	X	X	X	A	X	X	X	A	A	I	I	X	I	I	I	I	V
Dowtherm® SR-1	100	A	A	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	TVB
E																			
Endolene	100	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Epichlorohydrin	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																	
Ethanol	100	A	A	A	A	B	A	A	A	A	A	A	A	B	A	A	A	A	TBN
Ethanol Amine	100	A	A	B	B	I	B	A	B	A	B	A	A	B	I	I	I	I	TB
Ethyl Acetate	100	A	B	X	X	X	X	B	A	A	A	A	A	A	A	A	A	A	T
Ethyl Acetoacetate	100	A	B	X	X	X	X	A	B	A	A	A	B	I	I	I	I	I	T
Ethyl Acrylate	100	A	X	X	X	X	X	B	X	B	B	A	A	A	A	A	A	A	T
Ethyl Alcohol	100	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	TVBNS
Ethyl Aldehyde	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																	
Ethyl Aluminum Dichloride	100	X	X	X	X	B	X	I	X	B	I	A	I	I	I	I	I	I	TV
Ethyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	A	A	A	X	I	I	TV
Ethyl Butanol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	I	I	I	TB

# CHEMICAL CHARTS

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING			
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PEP®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER												METAL			
E	Temperature (°F)																
Ethyl Butyl Acetate	100	A	A	B	X	X	X	I	I	A	B	A	I	I	I	I	T
Ethyl Butyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	I	T B
Ethyl Butyl Amine	100	A	A	X	B	I	B	I	I	I	I	A	I	I	I	I	T B
Ethyl Butyl Ketone	100	A	B	X	X	X	X	X	I	A	A	A	I	I	I	I	T
Ethyl Butyraldehyde	100	A	B	X	X	X	X	X	I	A	B	A	I	I	I	I	T
Ethyl Chloride	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Ethyl Dichloride	100	B	X	X	X	B	X	X	X	B	B	A	I	I	I	I	T V
Ethyl Ether	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Ethyl Formate	100	A	B	X	X	X	X	A	B	A	A	A	A	I	I	I	T V
Ethyl Hexanol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	I	T B N
Ethyl Hexoic Acid	100	A	X	B	X	I	X	I	I	A	A	A	I	I	I	I	T
Ethyl Hexyl Acetate	100	A	A	B	X	X	X	I	I	A	B	A	I	I	I	I	T
Ethyl Hexyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	I	T B N
Ethyl Iodide	100	X	X	X	X	B	X	X	X	B	B	A	I	I	I	I	T V
Ethyl Isobutyl Ether	100	A	X	B	X	I	B	I	X	A	B	A	I	I	I	I	T
Ethyl Methyl Ketone	100	A	B	X	X	X	X	I	I	A	A	A	A	A	A	A	T
Ethyl Oxalate	100	A	A	X	A	I	X	A	X	A	B	A	I	I	I	I	T V
Ethyl Phthalate	100	A	A	X	X	X	X	B	I	A	I	A	I	I	I	I	T
Ethyl Propyl Ether	100	A	X	B	X	I	B	A	X	A	B	A	I	I	I	I	T B
Ethyl Propyl Ketone	100	A	B	X	X	X	X	I	I	A	A	A	I	I	I	I	T
Ethyl Silicate	100	A	A	I	X	I	A	A	I	A	A	A	A	I	I	I	T B N
Ethyl Sulfate	100	A	B	X	X	X	X	A	I	A	A	A	X	I	I	I	T B S
Ethylamine	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Ethylene Bromide	100	X	X	X	X	B	X	I	X	B	B	A	A	X	I	I	T V
Ethylene Chloride	100	B	X	X	X	B	X	I	X	B	B	A	A	B	I	I	T V
Ethylene Diamine	100	A	A	X	B	I	B	I	B	A	I	A	A	I	I	I	T B
Ethylene Dibromide	100	X	X	X	X	B	X	I	X	B	B	A	A	X	I	I	T V
Ethylene Dichloride	100	B	X	X	X	B	X	X	X	B	A	A	A	B	I	I	T V
Ethylene Glycol	150	A	A	A	A	A	A	A	A	A	A	A	A	A	I	I	T V B N S
Ethylhexil Phosphorodieth	100	I	X	X	I	I	A	A	X	X	I	I	I	I	I	I	B
Ex-Tri	100	A	X	X	X	A	X	I	I	A	B	A	I	I	I	I	T V

## CHEMICAL CHARTS

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE											FITTING						
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing	ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket			
		HOSE TUBE POLYMER											METAL						
Temperature (°F)																			
F																			
Ferric Bromide	150	A	A	A	A	A	A	A	A	A	A	A	A	I	I	I	I	TVB	
Ferric Chloride	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	X	TVBNS	
Ferric Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	TVBN	
Ferrous Acetate	100	A	A	A	X	X	X	I	I	A	A	A	A	I	I	I	I	T	
Ferrous Chloride	150	A	A	A	A	B	A	A	A	A	A	A	A	I	X	X	X	TB	
Ferrous Hydroxide	100	A	A	B	A	X	B	I	I	A	A	A	A	B	I	I	I	TN	
Ferrous Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	B	X	X	X	TVBN	
Fluoboric Acid 65%	150	B	A	A	A	I	I	A	I	I	A	A	A	I	I	X	TN		
Fluorine (wet)	100	X	X	X	X	X	X	X	X	X	X	B	X	X	X	X	T		
Fluosilicic Acid 50%	150	B	A	A	A	I	I	A	I	I	A	A	A	A	X	X	TN		
Formaldehyde 40%	100	A	A	A	B	B	A	A	A	A	A	A	A	A	B	I	TB		
Formalin	100	A	A	A	B	A	A	A	A	A	A	A	A	B	I	I	TVB		
Formic Acid	100	A	A	X	B	X	X	A	A	B	A	A	B	I	X	TV			
Freon® 12	100	A	X	X	X	B	B	I	X	B	X	A	A	I	I	TN			
Freon® 22	100	A	X	X	X	X	X	I	I	B	X	A	A	I	I	TN			
Fuel A (ASTM)	100	B	X	X	X	A	A	I	X	B	B	A	A	A	A	TVB			
Fuel B (ASTM)	100	B	X	X	X	A	A	I	X	B	B	A	I	I	I	TVB			
Fuel Oil	100	A	X	X	X	A	A	X	X	B	B	A	A	A	I	TVB			
Furfural	100	A	A	I	I	X	X	A	B	A	A	A	A	A	X	T			
Furfuryl Alcohol	100	A	X	I	I	X	I	A	I	A	A	A	A	A	I	T			
G																			
Gallic Acid	100	A	B	I	A	I	I	A	B	I	B	A	B	I	I	TS			
Gasoline	100	B	X	X	X	A	A	B	X	B	B	A	A	I	I	TVB			
Glacial Acetic Acid	100	A	B	X	X	X	X	B	A	A	A	A	A	B	X	T			
Gluconic Acid	100	A	X	B	X	I	X	A	I	A	A	A	X	X	A	T			
Glycerin	100	A	A	A	A	A	A	A	A	B	A	A	A	A	A	TVBNS			
Glyphosate	100	A	I	I	I	I	I	I	A	I	I	I	I	I	I	I			
Graffinite	100	I	X	X	X	X	A	A	X	X	I	I	I	I	I	B			
Grease	100	A	X	X	X	A	A	I	X	B	A	A	A	A	A	TVB			
Green Sulfate Liquor	150	A	A	A	A	I	A	A	A	A	A	A	A	X	X	TBS			
H																			
Heptanal	100	A	X	X	X	X	X	X	I	A	I	A	I	I	I	TB			
Heptane	100	A	X	X	X	A	A	A	X	B	B	A	A	A	I	TVB			

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**RATING SCALE**

- A** = May be used for Continuous Service
- B** = May be used for Intermittent Service
- I** = Insufficient data, contact customer services
- X** = Do not use

**GASKET**

- T** = Teflon®      **V** = Viton®
- B** = Nitrile      **N** = Neoprene
- S** = Silicone

**GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE**

**FITTING**

Temperature (°F)

	<i>Fabchem™</i>	<i>Gray Flexwing®</i>	<i>Yellow Flexwing</i>	<i>Tan Flexwing</i>	<i>Orange Flexwing</i>	<i>Flexwing Petroleum</i>	<i>Brown Flexwing, ExtremeFlex™ Brown</i>	<i>Purple Flexwing, ExtremeFlex™ Purple</i>	<i>Green XLPE</i>	<i>Blue Flexwing</i>	<i>Chem One™ &amp; Viper™</i>	<i>HI-PER®</i>	<i>Insta-Lock™</i>	<i>Insta-Lock</i>	<i>Insta-Lock</i>	<i>Insta-Lock</i>
<b>UHMWPE</b>	<b>Butyl</b>	<b>Hypalon®</b>	<b>NR</b>	<b>Viton®</b>	<b>Nitrile</b>	<b>CPE</b>	<b>EPDM</b>	<b>XLPE</b>	<b>Alphasyn™</b>	<b>Teflon®</b>	<b>316 SS</b>	<b>Aluminum</b>	<b>Brass</b>	<b>Gasket</b>		

**HOSE TUBE POLYMER**

**METAL**

<b>H</b>		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
Heptane Carboxylic Acid	100	A	X	B	X	A	X	A	I	A	A	A	I	I	I	I	TV
Hexaldehyde	100	A	X	X	X	X	X	I	X	A	B	A	A	A	I	I	T
Hexane	100	B	X	X	X	A	A	B	X	B	B	A	A	A	A	A	TVB
Hexanol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	I	TB
Hexyl Methyl Ketone	100	A	B	X	X	X	X	I	I	A	A	A	I	I	I	I	T
Hexylamine	100	A	B	X	X	X	X	B	I	A	B	A	I	I	I	I	T
Hexylene	100	X	X	X	X	A	A	I	X	X	I	A	I	I	I	I	TVB
Hexylene Glycol	150	A	A	A	A	A	A	A	I	A	A	A	A	B	A	A	TVBN
Hexyl-Alcohol	100	A	A	A	A	B	A	A	X	A	A	A	A	I	I	I	TB
Hi-Tri	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	I	TV
Hydrobromic Acid (37%)	150	B	A	A	A	I	X	A	A	I	A	A	X	X	X	X	TN
Hydrochloric Acid 38% concentrated, fuming acid	125	A	B	X	I	I	X	X	I	A	I	A	X	X	X	X	T
Hydrochloric Acid 37%	125	A	B	A	B	X	X	A	B	A	A	A	X	X	X	X	T
Hydrofluoric Acid (10%)	125	A	A	A	X	I	X	A	I	A	A	A	A	X	X	X	TN
Hydrofluosilicic Acid	150	B	B	A	A	I	I	A	A	I	A	A	A	X	X	X	T
Hydrogen Dioxide 10%	100	B	X	X	X	A	X	I	I	I	I	A	A	B	X	X	TV
Hydrogen Dioxide over 10%	100	B	X	X	X	I	X	I	X	I	I	A	I	I	X	X	T
Hydrogen Gas	---	<b>NO HOSE RECOMMENDED FOR THIS APPLICATION</b>															
Hydrogen Peroxide 10% to 50%	100	B	X	X	X	A	X	A	I	I	I	A	I	B	I	I	TVS
Hydrogen Peroxide over 50%	100	X	X	X	X	X	X	X	X	X	I	A	A	I	X	X	T

**I**

Iodine	100	A	I	A	I	I	I	A	I	B	I	A	I	I	X	X	TVB
Iron Acetate	100	A	A	A	X	X	X	I	I	A	A	A	I	I	I	I	TNS
Iron Hydroxide	100	A	A	B	X	X	B	I	I	A	A	A	I	I	I	I	TN
Iron Salts	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	I	TVBN
Iron Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	I	TVBN
Iron Sulfide	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	I	TVB
Isoamyl Acetate	100	A	A	B	X	X	X	I	X	A	B	A	I	I	I	I	T
Isoamyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	A	A	TBN
Isoamyl Bromide	100	B	X	X	X	B	X	I	X	B	I	A	I	I	I	I	TV
Isoamyl Butyrate	100	B	X	X	X	X	X	I	I	B	B	A	I	I	I	I	T
Isoamyl Chloride	100	X	X	X	X	B	X	I	I	X	B	A	I	I	I	I	TV

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE											FITTING					
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER											METAL					
		Temperature (°F)																
<b>I</b>		Isoamyl Ether	100	A	X	B	X	I	B	I	X	A	I	A	I	I	I	T
		Isoamyl Phthalate	100	A	A	X	X	X	X	I	I	A	I	A	I	I	I	T
		Isobutane	---	NO HOSE RECOMMENDED FOR THIS APPLICATION														
		Isobutanol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TBNS
		Isobutyl Acetate	100	A	A	B	X	X	X	B	X	A	B	A	A	B	I	T
		Isobutyl Alcohol	100	A	A	A	A	B	X	A	A	A	A	A	A	I	I	TNS
		Isobutyl Aldehyde	100	A	B	X	X	X	X	B	I	A	B	A	I	I	I	T
		Isobutyl Amine	100	A	B	X	X	X	X	I	I	A	B	A	I	I	I	T
		Isobutyl Bromide	100	B	X	X	X	B	X	I	X	X	I	A	I	I	I	TV
		Isobutyl Carbinol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	A	TBN
		Isobutyl Chloride	100	B	X	X	X	B	X	I	X	X	I	A	I	I	I	TV
		Isobutyl Ether	100	A	X	B	X	I	X	I	X	A	I	A	I	I	I	TB
		Isobutylene	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	TV
		Isooctane	100	B	X	X	X	A	A	I	X	B	B	A	A	A	A	TVBS
		Isopentane	---	NO HOSE RECOMMENDED FOR THIS APPLICATION														
		Isophorone	100	B	A	I	I	I	X	I	A	B	B	A	B	A	I	T
		Isopropanol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TVBS
		Isopropanol Amine	100	A	A	X	B	X	B	I	I	A	B	A	I	I	I	TB
		Isopropyl Acetate	100	A	A	X	X	X	X	B	X	A	A	A	A	I	I	T
		Isopropyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TBNS
		Isopropyl Amine	100	A	B	X	X	X	X	I	I	A	B	A	I	I	I	T
		Isopropyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	I	I	I	TV
		Isopropyl Chloride	---	NO HOSE RECOMMENDED FOR THIS APPLICATION														
		Isopropyl Ether	100	A	X	B	X	I	X	I	X	A	B	A	A	I	I	TB
		Isopropyl Toluene	100	A	X	X	X	A	X	I	X	A	I	A	I	I	I	TV
<b>J</b>		Jet Fuels	---	SPECIAL HOSE REQUIRED											A	A	A	TVB
<b>K</b>		Kerosene	100	A	X	X	X	A	A	A	X	A	A	A	A	A	I	TVB
<b>L</b>		Lauryl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	TB
		Lead Acetate	100	A	A	X	X	X	X	A	B	A	A	A	A	X	X	T

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE											FITTING				
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER											METAL				
		Temperature (°F)															
<b>L</b>																	
Lead Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBN	
Ligroin	100	A	X	X	X	A	A	I	X	A	B	A	A	A	I	T V B	
Linseed Oil	100	A	A	B	X	A	A	A	B	I	A	A	A	I	A	TVBNS	
Liquefied Natural Gas (LNG)	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Liquefied Petroleum Gas (LPG)	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Lubricating Oils	100	A	X	X	X	A	A	I	X	A	I	A	A	A	A	T V B	
<b>M</b>																	
MIBK	100	A	X	X	X	X	X	X	X	A	B	A	X	X	X	T	
M.E.K.	100	A	X	X	X	X	X	X	X	A	B	A	X	X	X	T	
Magnesium Acetate	100	A	A	A	X	X	X	A	I	A	A	A	I	I	I	T	
Magnesium Chloride	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBS	
Magnesium Hydrate	150	A	A	B	A	B	B	I	I	A	A	A	A	X	I	T N	
Magnesium Hydroxide	150	A	A	B	A	B	B	A	A	A	A	A	A	X	I	TVBN	
Magnesium Sulfate	150	A	A	A	A	A	A	A	B	A	A	A	A	I	I	TVBNS	
Maleic Acid	100	A	X	X	X	I	X	I	I	B	I	A	A	B	X	T V	
Malic Acid	150	B	I	A	A	I	I	I	I	I	I	A	A	B	X	TVBNS	
Manganese Sulfate	150	A	A	A	X	A	A	A	A	A	A	A	A	I	I	TVBN	
Manganese Sulfide	150	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVB	
Manganese Sulfite	150	A	A	A	X	A	A	A	A	A	A	A	I	I	I	TVB	
Methanol	100	A	A	A	A	X	A	A	A	A	A	A	A	I	I	T B	
Mesityl Oxide	100	A	B	X	X	X	X	B	X	A	B	A	A	I	I	T	
Methallyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	T B	
Methyl (Wood) Alcohol	100	A	A	A	A	X	A	A	A	A	A	A	A	I	I	TBNS	
Methyl Acetate	100	A	A	B	X	X	X	A	A	A	A	A	A	I	I	T	
Methyl Acetoacetate	100	A	B	X	X	X	X	A	I	A	A	A	I	I	I	T	
Methyl Acetone	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Methyl Amyl Acetate	100	B	A	B	X	X	X	I	X	A	B	A	I	I	I	T	
Methyl Amyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	TBN	
Methyl Amyl Carbinol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	T B	
Methyl Amyl Ketone	100	A	B	X	X	X	X	X	I	A	B	A	I	I	I	T	
Methyl Benzene	100	A	X	X	X	A	X	X	X	A	B	A	A	A	A	T V	
Methyl Butanol	100	A	A	A	A	B	A	A	I	A	A	A	A	I	A	TBN	

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING				
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PCR®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER												METAL				
M																		
Methyl Butanone	100	A	B	X	X	X	X	B	B	A	B	A	I	I	I	I	T	
Methyl Butyl Ketone	100	A	B	X	X	X	X	X	I	A	B	A	A	B	I	T		
Methyl Carbitol	100	A	A	A	X	I	X	A	I	A	A	A	I	I	I	T		
Methyl Cellosolve	100	A	A	A	X	I	X	A	A	A	A	A	A	B	A	T		
Methyl Chloride	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Methyl Cyclohexane	100	A	X	X	X	B	X	B	X	B	I	A	I	I	I	TV		
Methyl Ethyl Ketone (M.E.K.)	100	A	X	X	X	X	X	X	X	A	B	A	X	X	X	T		
Methyl Hexanol	100	A	A	A	B	A	A	A	A	A	A	A	I	I	I	TVB		
Methyl Hexanone	100	A	B	X	X	X	X	X	I	A	B	A	I	I	I	T		
Methyl Hexyl Ketone	100	A	B	X	X	X	X	X	I	A	B	A	I	I	I	T		
Methyl Isobutyl Carbinol	100	A	A	A	A	B	A	A	A	A	A	A	B	I	I	TBN		
Methyl Isobutyl Ketone (MIBK)	100	A	X	X	X	X	X	X	X	A	B	A	X	X	X	T		
Methyl Isopropyl Ketone	100	A	B	X	X	X	X	B	B	A	B	A	A	I	I	T		
Methyl Normal Amyl Ketone	100	A	B	X	X	X	X	I	I	A	B	A	I	I	I	T		
Methyl Propyl Carbinol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	TB		
Methyl Propyl Ether	100	A	X	B	X	I	X	I	X	A	B	A	I	I	I	T		
Methyl Propyl Ketone	100	A	B	X	X	X	X	B	I	A	B	A	I	I	I	T		
Methyl Tertiary Butyl Ether (MTBE) 100% Concentratel	100	X	X	X	X	X	X	X	X	A	B	I	I	I	I	I		
Methylallyl Acetate	100	A	A	B	X	X	X	I	A	A	A	A	I	I	I	T		
Methylallyl Chloride	100	A	X	X	X	X	X	X	I	B	I	A	I	I	I	T		
Methyldiethanolamine	100	A	X	X	X	X	A	A	X	A	A	A	I	I	I	TB		
Methylene Bromide	100	B	X	X	X	B	X	I	X	B	A	A	I	I	I	TV		
Methylene Chloride	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Metribuzin	100	A	I	I	I	I	I	I	A	I	I	A	I	I	I	T		
Mineral Spirits	100	A	X	X	X	B	A	I	X	A	B	A	A	A	I	TB		
Monochloroacetic Acid	100	A	X	X	B	I	X	A	X	A	A	A	A	X	X	T		
Monochlorobenzene	100	B	X	X	X	A	X	X	X	B	B	A	A	B	B	TV		
Monochlorodifluoromethane	100	I	X	X	X	X	X	I	I	I	I	A	A	I	I	TN		
Monoethanol Amine	100	A	A	X	B	I	B	A	B	A	B	A	A	B	I	TN		
Monoethyl Amine	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Monoisopropanol Amine	100	A	A	X	B	I	B	I	I	A	B	A	I	I	I	TB		
Muriatic Acid	125	A	X	X	A	I	X	A	X	A	A	A	X	X	X	T		

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		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER												METAL			
N		Temperature (°F)															
N/Methylpyrrolidone	100	A	X	X	X	X	X	X	X	A	I	A	I	I	I	T	
Naphtha	100	A	X	X	X	A	A	A	X	A	A	A	A	A	I	TVBN	
Naphthalene	100	A	X	X	X	A	X	I	X	A	I	A	A	B	I	TV	
Natural Gas	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Neohexane	100	A	X	X	X	A	A	B	X	A	B	A	A	A	I	TVB	
Neu-Tri	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	TV	
Nickel Chloride	150	A	A	A	A	A	A	A	A	A	A	A	B	X	X	TVBS	
Nickel Nitrate	150	A	A	A	A	A	A	A	A	A	A	A	B	X	X	TVBN	
Nickel Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Nitric Acid 25%	100	B	B	X	X	X	X	X	X	B	A	A	A	X	X	TV	
Nitric Acid 37%	100	X	X	X	X	X	X	X	X	X	A	A	A	X	X	TV	
Nitric Acid 40%-60%	100	X	X	X	X	X	X	X	X	X	B	A	A	X	X	TV	
Nitric Acid 70%	100	X	X	X	X	X	X	X	X	X	B	A	B	X	X	T	
Nitro Benzene	100	A	X	X	X	B	X	X	X	A	B	A	A	B	X	T	
Nitrogen Gas	100	A	A	A	A	A	A	A	A	A	A	A	A	I	I	TVBNS	
Nitrous Oxide	100	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBNS	
Nonenes	100	A	X	X	X	A	A	I	X	A	B	A	I	I	I	V B	
O																	
Octadecanoic Acid	100	A	B	X	X	I	A	A	B	A	A	A	A	B	A	T B	
Octane	100	B	X	X	X	A	A	A	X	B	B	A	B	I	B	TVB	
Octanol	100	A	A	A	A	B	A	A	X	A	A	A	A	I	I	TBN	
Octyl Acetate	100	A	A	A	X	X	X	X	I	A	B	A	I	I	I	T	
Octyl Alcohol	100	A	A	A	A	B	A	A	X	A	A	A	A	I	I	T B	
Octyl Aldehyde	100	A	X	X	X	X	X	I	I	A	I	A	I	I	I	T	
Octyl Amine	100	A	B	X	X	X	X	B	I	A	B	A	I	I	I	T	
Octyl Carbinol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	T B	
Octylene Glycol	100	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVB	
Oil Petroleum	100	B	X	X	X	A	A	A	X	A	B	A	A	A	X	TVB	
Oleic Acid	100	A	B	X	X	I	B	A	X	A	B	A	A	B	X	T B	
Oleum	100	X	X	X	X	X	X	X	X	X	X	A	I	X	X	TV	
Organic Fatty Acids	100	A	X	X	X	X	A	A	X	A	B	A	A	I	I	T B	
Orthodichlorobenzene	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	TV	

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		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER											METAL					
		Temperature (°F)																
<b>O</b>		Orthodichlorobenzol	100	A	X	X	X	A	X	I	X	A	I	A	I	I	I	TV
		Orthoxylene	100	B	X	X	X	A	X	I	X	A	B	A	I	I	I	TV
		Oxalic Acid	100	A	A	X	X	I	X	A	B	I	B	A	A	B	X	TS
		Oxygen	---	NO HOSE RECOMMENDED FOR THIS APPLICATION														
		Ozone	100	A	B	B	X	I	X	A	A	I	B	A	I	I	I	TS
<b>P</b>		Palmitic Acid	100	A	A	B	X	I	A	A	B	B	B	A	A	I	X	TBS
		Papermakers Alum	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVBN
		Paradichlorobenzol	100	B	X	X	X	A	X	I	X	A	I	A	I	I	I	TV
		Paraffin	150	A	B	X	X	A	A	A	X	X	I	A	A	A	A	TVB
		Paraldehyde	100	A	B	X	X	X	X	I	B	A	B	A	A	A	I	T
		Paraxylene	100	A	X	X	X	A	X	I	X	A	B	A	I	I	I	TV
		Pelargonic Acid	100	A	A	X	X	I	A	I	I	A	I	A	I	I	I	TB
		Pentachloroethane	100	A	X	X	X	A	X	I	X	A	I	A	A	B	X	TV
		Pentane	---	NO HOSE RECOMMENDED FOR THIS APPLICATION														
		Pentanol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	TBN
		Pentanone	100	A	B	X	X	X	X	B	I	A	B	A	I	I	I	T
		Perchloroethylene	100	B	X	X	X	A	X	X	X	A	B	A	A	B	X	TV
		Petroleum Ether (Ligroin)	100	A	X	X	X	A	A	A	X	A	B	A	A	A	I	TVB
		Petroleum - Crude	100	A	X	X	X	A	A	A	X	A	B	A	A	A	X	TVB
		Petroleum Oils	100	A	X	X	X	A	A	A	X	A	B	A	A	A	X	TVB
		Phenol	125	A	A	X	X	A	X	A	X	A	B	A	A	B	B	TV
		Phenolsulfonic Acid	100	X	X	X	X	X	X	A	I	B	B	A	B	I	I	T
		Phenyl Chloride	100	A	X	X	X	A	X	X	X	A	B	A	A	B	I	TV
		Phosphoric Acid 10%	150	A	A	A	A	X	A	A	A	A	A	A	A	X	X	TVBN
		Phosphoric Acid 10-85%	100	A	A	A	B	X	X	A	A	A	A	A	A	X	I	TVN
		Pine Oil	100	A	X	X	X	A	X	B	X	A	B	A	A	I	X	TV
		Pinene	100	A	X	X	X	A	B	B	X	A	B	A	B	I	I	TV
		Polyethylene Glycol	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVBN
		Polypropylene Glycol	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVB
		Potassium Acetate	100	A	A	B	X	X	X	A	B	A	A	A	A	X	X	TB
		Potassium Bisulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBN
		Potassium Bisulfite	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVBN

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		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER											METAL				
P	Temperature (°F)																
Potassium Carbonate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBN	S
Potassium Chloride	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Potassium Chromate	150	B	A	X	I	I	I	A	I	B	B	A	B	I	I	TVBN	
Potassium Dichromate	150	B	A	X	I	I	I	A	I	B	B	A	A	B	X	TVBNS	
Potassium Hydrate	150	A	A	B	A	X	B	A	B	A	A	A	A	X	I	T	S
Potassium Hydroxide	150	B	A	B	A	X	B	A	B	A	A	A	A	X	X	T	N
Potassium Nitrate	150	A	A	A	A	A	A	A	A	A	A	A	A	B	A	TVBNS	
Potassium Permanganate	100	A	A	A	A	A	B	I	I	A	A	A	A	I	I	TVS	
Potassium Silicate	150	A	A	A	A	A	A	A	A	A	A	A	A	I	I	TVBNS	
Potassium Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	B	A	TVBNS	
Potassium Sulfide	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Potassium Sulfite	150	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBNS	
Propanediol	100	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVBS	
Propane Gas	---	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Propanol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	TVB	
Propyl Acetate	100	A	A	B	X	X	X	B	X	A	B	A	A	I	I	T	
Propyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	A	I	I	T	B
Propyl Aldehyde	100	A	B	X	X	X	X	X	I	A	B	A	I	I	I	T	
Propyl Chloride	---	NO HOSE RECOMMENDED FOR THIS APPLICATION															
Propylene Diamine	100	A	A	X	B	I	B	A	I	A	I	A	I	I	I	T	B
Propylene Dichloride	100	B	X	X	X	B	X	X	X	B	I	A	A	X	I	T	V
Propylene Glycol	100	A	A	A	A	A	A	A	A	A	A	A	A	I	I	TVBS	
Propylene Tetramer	100	A	X	X	X	X	A	A	X	A	B	I	I	I	I	B	
S	Temperature (°F)																
Sea Water	100	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBNS	
Sewage	100	A	X	A	X	I	A	A	A	A	A	A	A	X	I	TBNS	
Silicate of Soda	100	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Soap	100	A	X	X	X	X	A	A	X	X	I	A	A	X	X	TBNS	
Soda Ash	100	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBNS	
Soda, Caustic	100	A	A	B	A	X	B	A	A	A	A	A	A	X	X	TNS	
Soda, Lime	100	A	A	B	A	X	B	A	A	A	A	A	I	I	I	TVB	
Soda, Niter	100	A	A	A	A	A	A	A	B	A	A	A	A	B	I	TVB	
Sodium Acetate	100	A	A	A	X	X	X	A	B	B	B	A	A	I	A	TNS	

## CHEMICAL CHARTS

This chemical chart is offered as a guide only. There are many variables to be considered with each application. Ratings are for tube polymer only! For explanation of ratings see the initial page of these Chemical Charts in Appendix B. Contact customer services for chemicals or polymers not listed at 800-235-4632.

		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE												FITTING			
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PEP®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket	
		HOSE TUBE POLYMER												METAL			
		S															
	Temperature (°F)																
Sodium Aluminate	100	A	A	A	A	A	A	A	A	A	A	A	A	I	I	TVBN	
Sodium Bisulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Sodium Bisulfite	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Sodium Carbonate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBNS	
Sodium Chloride (Brine)	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBNS	
Sodium Chromate	150	X	A	X	I	I	I	A	I	X	I	A	A	A	A	TVBN	
Sodium Dichromate	150	A	A	X	I	I	I	A	A	A	A	A	A	I	X	T	
Sodium Hydrate	150	A	A	B	A	X	B	A	A	A	A	A	B	X	X	T N	
Sodium Hydrosulfide	100	A	X	X	X	X	A	A	X	A	I	A	I	B	I	T B	
Sodium Hydroxide (50%)	150	A	A	B	A	X	B	A	A	A	A	A	A	X	X	TBN	
Sodium Hypochlorite	100	B	B	X	X	B	X	A	A	X	B	A	X	X	X	TVS	
Sodium Nitrate	150	A	A	A	A	A	A	A	B	A	A	A	A	B	I	TVBNS	
Sodium Silicate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS	
Sodium Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	B	X	TVBNS	
Sodium Sulfide	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBN	
Sodium Sulfite	150	A	A	A	A	A	A	A	B	A	A	A	A	I	I	TVBNS	
Sodium Sulphhydrate	100	A	X	X	X	X	A	A	X	A	B	A	I	I	I	T B	
Sodium Thiosulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	I	X	TVBNS	
Stannic Chloride	150	A	A	A	A	I	A	A	A	A	A	A	X	X	X	T B	
Stannic Sulfide	150	A	A	A	A	I	A	A	A	A	A	A	I	I	I	TBN	
Stannous Chloride	150	A	A	A	A	I	A	A	B	A	A	A	A	X	X	T B	
Stannous Sulfide	150	A	A	A	A	I	A	A	A	A	A	A	I	I	I	T B	
Stearic Acid	100	A	B	X	X	I	A	A	B	A	A	A	A	B	A	TVB	
Stoddard Solvent	100	A	X	X	X	A	A	A	X	A	B	A	A	A	I	TVB	
Styrene	100	B	X	X	X	A	X	X	X	X	I	A	A	I	I	T V	
Sulfamic Acid (>10%)	100	X	A	B	B	I	B	A	I	I	I	A	I	I	I	TVN	
Sulfonic Acid	100	B	X	X	X	X	X	I	I	B	I	A	I	I	I	TVN	
Sulfur Dioxide (Liquid)	100	B	B	B	I	X	I	I	I	X	I	A	A	I	I	T N	
Sulfuric Acid 25%	150	A	A	B	B	I	X	A	A	A	A	A	I	X	X	TVN	
Sulfuric Acid 93%	100	X	X	B	X	B	X	X	B	A	A	A	I	X	X	T V	
Sulfuric Acid 93-98%	100	X	X	X	X	B	X	X	X	I	B	A	I	X	X	T V	
Sulfuric Acid Fuming	100	X	X	X	X	X	X	X	X	X	X	A	I	X	X	T	

# CHEMICAL CHARTS

This chemical chart is offered as a guide only. There are many variables to be considered with each application. Ratings are for tube polymer only! For explanation of ratings see the initial page of these Chemical Charts in Appendix B. Contact customer services for chemicals or polymers not listed at 800-235-4632.

		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE											FITTING					
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock	
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER											METAL					
		Temperature (°F)																
<b>RATING SCALE</b>																		
A = May be used for Continuous Service																		
B = May be used for Intermittent Service																		
I = Insufficient data, contact customer services																		
X = Do not use																		
<b>GASKET</b>																		
T = Teflon®      V = Viton®																		
B = Nitrile      N = Neoprene																		
S = Silicone																		
<b>S</b>																		
Sulfurous Acid 10%	150	A	A	A	A	I	X	A	A	A	A	A	I	X	X	T		
Sulfurous Acid 10-75%	100	A	A	A	A	I	X	A	A	A	A	A	I	X	X	T		
Sulphonate	100	I	X	X	X	X	A	A	X	X	I	I	I	I	I	B		
<b>T</b>																		
Tall Oil	100	A	X	X	X	A	A	I	X	I	I	A	A	X	X	TVB		
Tallow	150	A	X	X	X	I	A	A	X	I	I	A	A	I	A	TBNS		
Tannic Acid	150	A	A	A	A	I	B	A	X	I	I	A	A	X	I	TVBN		
Tar	---	SPECIAL HOSE REQUIRED											A	A	I	I		
Tartaric Acid	150	A	A	A	A	I	A	A	A	A	A	A	A	I	A	TBN		
Tergitol	100	X	I	I	I	I	I	I	I	I	I	A	I	I	I	T		
Tertiary Butyl Alcohol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	T B		
Tetrachlorobenzene	100	B	X	X	X	B	X	I	X	B	I	A	I	I	I	T		
Tetrachloroethane	100	A	X	X	X	A	X	I	X	X	I	A	A	X	X	TV		
Tetrachloroethylene	100	A	X	X	X	A	X	X	X	A	B	A	A	B	X	TV		
Tetrachloromethane	100	A	X	X	X	A	X	X	X	X	B	A	A	I	I	TV		
Tetrachloronaphthalene	100	B	X	X	X	B	X	I	X	X	I	A	I	I	I	T		
Tetradecanol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	T B		
Tetraethylene Glycol	150	A	A	A	A	A	A	A	A	A	A	A	I	I	I	TVB		
Tetraethylene Lead	100	X	X	X	X	A	X	X	X	X	I	A	I	I	I	TV		
Tetrahydrofuran	100	B	X	X	X	X	X	X	X	B	X	A	A	B	X	T		
THF	100	B	X	X	X	X	X	X	X	B	X	A	A	B	X	T		
Thionyl Chloride	100	X	I	I	I	I	I	I	I	I	X	A	X	X	X	T		
Tin Chloride	100	A	A	A	A	I	A	A	A	A	A	A	X	X	X	TVB		
Tin Tetrachloride	150	B	A	A	A	I	A	A	A	A	A	A	X	X	X	T B		
Titanium Tetrachloride	100	B	X	X	X	A	B	X	X	A	B	A	B	X	X	TV		
Toluene	100	A	X	X	X	A	X	X	X	B	B	A	A	A	A	TV		
Toluidine	100	X	I	I	I	I	I	I	I	I	I	A	I	I	I	T		
Toluol	100	A	X	X	X	A	X	X	X	A	B	A	A	A	A	TV		
Transformer Oil	100	X	I	I	I	I	I	I	I	I	I	A	A	I	I	T		
Transmission Oil "A"	150	B	X	X	X	A	A	I	X	I	I	A	A	A	A	TVB		
Tributoxy Ethylsulphate	100	I	A	X	X	A	X	X	A	X	I	I	I	I	I	V		
Tributyl Amine	100	A	A	X	B	I	B	A	I	A	A	A	I	I	I	T		
Tributyl Phosphate	100	A	A	X	X	X	X	X	X	A	I	A	A	I	X	T		

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE											FITTING					
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing	ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER											METAL					
T		Temperature (°F)	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
Trichlorobenzene	100	B	X	X	X	B	X	X	X	B	I	A	I	A	I	T		
Trichloroethane	100	A	X	X	X	A	X	B	X	X	B	A	A	I	I	TV		
Trichloroethylene	100	X	X	X	X	A	X	X	X	X	B	A	A	I	I	TV		
Trichloropropane	100	A	X	X	X	A	X	I	X	A	I	A	A	X	I	TV		
Tricresylphosphate	100	A	A	X	X	A	X	A	A	A	I	A	A	X	I	TV		
Tridecanol	100	A	A	A	A	B	A	A	A	A	A	A	I	I	I	TB		
Triethanolamine	100	A	A	X	B	X	B	A	A	A	A	A	A	I	X	TB		
Triethylamine	100	A	A	X	B	I	B	A	I	A	A	A	A	I	I	TVBN		
Triethylene Glycol	150	A	A	A	A	I	A	A	I	A	A	A	A	A	I	TB		
Trifluralin (Trefalin)	100	A	X	X	X	A	X	X	X	A	I	A	I	I	I	TV		
Triphenyl Phosphate	100	A	A	X	X	I	X	I	I	A	I	A	A	I	I	T		
Tripolyphosphate	100	X	I	I	I	I	I	I	I	I	I	A	I	I	I	T		
Trisodium Phosphate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	I	TVBNS		
Turpentine	100	A	X	X	X	A	A	B	X	A	X	A	A	A	A	TVB		
U																		
Urea	100	A	A	I	I	I	X	A	I	A	A	A	A	B	I	TVBN		
Undecanol	100	B	A	A	A	B	A	A	A	A	A	A	I	I	I	TB		
V																		
V.M. & P. Naptha	100	A	X	X	X	A	A	I	X	A	I	A	I	I	I	TVBS		
Vinyl Acetate	100	A	A	B	X	X	X	A	X	A	B	A	A	I	X	TV		
Vinyl Benzene	100	A	X	X	X	A	X	X	X	A	I	A	A	I	I	TV		
Vinyl Chloride	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Vinyl Ether	---	NO HOSE RECOMMENDED FOR THIS APPLICATION																
Vinyl Toluene	100	A	X	X	X	A	X	X	X	A	I	A	I	I	I	TV		
Vinyl Trichloride	100	A	X	X	X	A	X	X	X	A	B	A	A	I	I	TV		

# CHEMICAL CHARTS

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		GOODYEAR® ENGINEERED PRODUCTS CHEMICAL HOSE											FITTING					
		Fabchem™	Gray Flexwing®	Yellow Flexwing	Tan Flexwing	Orange Flexwing	Flexwing Petroleum	Brown Flexwing, ExtremeFlex™ Brown	Purple Flexwing, ExtremeFlex™ Purple	Green XLPE	Blue Flexwing	Chem One™ & Viper™	HI-PER®	Insta-Lock™	Insta-Lock	Insta-Lock	Insta-Lock	
		UHMWPE	Butyl	Hypalon®	NR	Viton®	Nitrile	CPE	EPDM	XLPE	Alphasyn™	Teflon®	316 SS	Aluminum	Brass	Gasket		
		HOSE TUBE POLYMER											METAL					
		Temperature (°F)																
W		Water	180	A	A	A	A	A	A	A	A	A	A	A	I	I	TVBNS	
Wax	100	A	X	X	X	X	A	A	X	X	X	A	A	I	I	TVBN		
White Oil	100	A	X	X	X	I	A	A	X	I	I	A	I	I	I	TVB		
Wood Alcohol	100	A	A	A	A	X	A	A	A	A	A	A	A	I	I	TBNS		
X		Xylene (Xylol)	100	X	X	X	X	A	X	X	X	A	B	A	A	I	I	T V
Xylidine	100	B	X	X	X	X	X	X	X	X	B	B	A	B	A	I	T	
Z		Zinc Carbonate	150	A	A	A	A	A	A	A	A	A	A	B	B	X	TVBN	
Zinc Chloride	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS		
Zinc Chromate	150	A	A	X	I	I	I	A	X	B	I	A	I	I	I	T		
Zinc Phosphate	100	A	X	X	X	X	A	A	A	X	I	A	I	I	I	TBNS		
Zinc Sulfate	150	A	A	A	A	A	A	A	A	A	A	A	A	X	X	TVBNS		

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
A = May be used for Continuous Service B = May be used for Intermittent Service X = Do not use I = Insufficient data	Temperature (°F)	Polyurethane/Spirathane™	PVC/Pliovic® Plus	TPE/Arvac SW	TPR/Green Hornet XF
Acetaldehyde	70°	X	X	I	X
Acetic Acid, Conc.	70°	X	B	I	I
Acetic Acid, Dilute 10	70°	B	A	I	I
Acetic Acid, Glacial	70°	X	B	I	X
Acetic Aldehyde	70°	I	X	I	X
Acetic Anhydride	70°	X	X	X	X
Acetic Ester	70°	X	X	X	B
Acetic Ether	70°	X	X	X	I
Acetone	70°	X	X	X	B
Acetone Cyanohydrin	70°	X	X	X	I
Acetyl Acetone	70°	X	X	X	I
Acetyl Chloride	70°	X	I	X	X
Acetylene Dichloride	70°	I	X	I	X
Acetylene Tetrachloride	70°	I	X	I	I
Acrylonitrile	70°	A	A	B	I
Allyl Alcohol	70°	X	X	X	X
Allyl Bromide	70°	X	X	X	I
Allyl Chloride	70°	X	X	X	I
Alum	70°	A	A	A	B
Aluminum Acetate	70°	I	I	I	I
Aluminum Chloride	70°	A	A	A	B
Aluminum Hydroxide	70°	A	A	A	I
Aluminum Sulfate	70°	A	A	A	B
Ammonia Cupric Sulfate	70°	I	X	I	I
Ammonia Water	70°	A	A	A	A
Ammonium Chloride	70°	A	A	A	B
Ammonium Hydroxide	70°	B	B	I	B
Ammonium Nitrate	70°	A	A	A	I
Ammonium Phosphate	70°	I	I	I	B
Ammonium Sulfate	70°	A	A	A	B
Ammonium Sulfide	70°	A	A	A	I
Ammonium Sulfite	70°	A	A	A	I
Ammonium Thiosulfate	70°	A	A	I	I

Thermoplastic Hose					
A = May be used for Continuous Service B = May be used for Intermittent Service X = Do not use I = Insufficient data	Temperature (°F)	Polyurethane/Spirathane™	PVC/Pliovic® Plus	TPE/Arvac SW	TPR/Green Hornet XF
Amyl Acetate	70°	X	X	X	X
Amyl Alcohol	70°	B	B	I	X
Amyl Chloride	70°	X	X	X	X
Amyl Phenol	70°	I	X	I	I
Amyl Phthalate	70°	I	X	I	I
Aniline Oils	70°	X	X	X	I
Animal Grease	70°	A	A	A	I
Animal Oils	70°	A	A	A	X
Aqua Ammonia	70°	I	B	B	I
Aromatic Tar	70°	X	X	X	I
Arsenic Acid	70°	A	A	A	I
Arsenic Chloride	70°	A	A	I	I
Arsenic Trichloride	70°	A	A	I	I
Asphalt	70°	X	X	X	X
ASTM #1 Oil	70°	A	A	A	X
ASTM #2 Oil	70°	A	A	I	X
ASTM #3 Oil	70°	A	A	B	X
B					
Barium Carbonate	70°	A	A	A	I
Barium Chloride	70°	A	A	A	I
Barium Hydroxide	70°	A	A	A	I
Barium Sulfate	70°	A	A	A	I
Barium Sulfide	70°	A	A	A	I
Benzyl Chloride	70°	I	X	I	I
Benzaldehyde	70°	X	X	X	X
Benzene (Benzol)	70°	X	X	X	X
Benzine (Ligroin)	70°	X	X	X	X
Benzine Solvent (Ligroin)	70°	X	X	X	X
Benzoic Acid	70°	B	A	A	B
Benzoic Aldehyde	70°	I	X	I	I
Benzotrichloride	70°	I	X	I	I
Benzoyl Chloride	70°	I	X	I	I
Benzyl Acetate	70°	I	X	I	I

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
A = May be used for Continuous Service B = May be used for Intermittent Service X = Do not use I = Insufficient data					
B					
Benzyl Chloride	70°	I	X	I	I
Bichromate of Soda	70°	I	A	I	I
Black Sulfate Liquor	70°	A	A	A	I
Bleach	70°	A	A	A	B
Brine	70°	A	A	A	B
Bromine	70°	X	X	X	X
Bromo Benzene	70°	I	X	I	X
Bromo Toluene	70°	I	X	I	I
Bromochloromethane	70°	I	X	I	X
Butanol	70°	I	X	I	B
Butyl (Normal) Alcohol	70°	I	X	X	B
Butyl (Secondary) Alcohol	70°	I	X	X	B
Butyl Acetate	70°	X	X	I	X
Butyl Acetoacetate	70°	I	X	I	I
Butyl Acrylate	70°	I	X	I	I
Butyl Alcohol	70°	A	A	A	B
Butyl Benzene	70°	I	X	I	I
Butyl Benzl Phthalate	70°	I	X	I	I
Butyl Bromide	70°	I	X	I	I
Butyl Butyrate	70°	I	X	I	I
Butyl Chloride	70°	I	X	I	I
Butyl Phthalate	70°	I	X	I	X
Butyric Acid	70°	I	X	B	I
C					
Cadmium Acetate	70°	I	A	I	I
Calcium Acetate	70°	I	A	I	I
Calcium Aluminate	70°	I	A	I	I
Calcium Bichromate	70°	I	A	I	I
Calcium Bisulfate	70°	I	A	B	I
Calcium Bisulfite	70°	A	A	A	I
Calcium Carbonate	70°	A	A	A	I
Calcium Chloride	70°	A	A	A	I
Calcium Hydroxide (Caustic Lime)	70°	A	A	A	I

Thermoplastic Hose					
	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
A = May be used for Continuous Service B = May be used for Intermittent Service X = Do not use I = Insufficient data					
C					
Calcium Hypochlorite	70°	A	A	I	I
Calcium Nitrate	70°	A	A	I	I
Calcium Silicate	70°	A	A	I	I
Calcium Sulfate	70°	A	A	A	I
Calcium Sulfide	70°	A	A	I	I
Calcium Sulfite	70°	A	A	I	I
Carbolic Acid, Phenol	70°	X	X	X	X
Carbon Dioxide	70°	A	A	A	B
Carbon Disulfide	70°	X	X	X	X
Carbon Monoxide	70°	A	A	A	B
Carbon Tetrachloride	70°	X	X	X	X
Carbonic Acid	70°	I	A	A	I
Casinghead Gasoline	70°	I	X	X	X
Caster Oil (Castor Oil)	70°	A	A	A	I
Caustic Potash	70°	A	A	A	A
Caustic Soda	70°	A	A	A	B
Chlorinated Solvents	70°	I	X	I	I
Chlorine (Dry)	70°	A	A	A	B
Chlorine (Wet)	70°	B	X	I	B
Chloroacetone	70°	I	X	I	I
Chlorobenzene	70°	X	X	X	X
Chlorobutane	70°	I	X	I	I
Chloroethylbenzene	70°	I	X	I	I
Chloroform	70°	X	X	X	X
Chloropentane	70°	I	X	I	X
Chlorophenol	70°	I	X	I	I
Chloropropanone	70°	I	X	I	I
Chlorosulfonic Acid	70°	I	B	I	X
Chlorothene	70°	I	X	I	X
Chlorotoluene	70°	X	X	X	X
Chromic Acid	70°	B	B	B	B
Copper Chloride	70°	A	A	A	B
Copper Hydrate	70°	I	A	I	I

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
C	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
		<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data			
Copper Hydroxide	70°	I	A	I	I
Copper Nitrate	70°	A	A	A	I
Copper Nitrite	70°	A	A	A	I
Copper Sulfate	70°	A	A	A	I
Copper Sulfide	70°	B	A	B	I
Creosol	70°	X	X	X	X
Creosote	70°	X	X	X	X
Crude Oil	70°	B	A	B	X
Cupric Carbonate	70°	I	A	I	I
Cupric Chloride	70°	A	A	I	I
Cupric Nitrate	70°	A	A	I	I
Cupric Nitrite	70°	A	A	I	I
Cupric Sulfate	70°	A	A	A	I
Cyclohexane	70°	X	X	X	X
Cyclohexanol	70°	X	X	X	X
Cyclohexanone	70°	X	X	X	X
Cyclopentane, methyl	70°	I	A	I	I
Cyclopentanol	70°	I	A	I	I
Cyclopentanone	70°	I	A	I	I
D					
D.D.T.	70°	I	A	I	I
D.D.T. in Kerosene	70°	X	X	X	X
Decalin	70°	I	B	I	I
Decanol	70°	I	B	I	I
Decyl Alcohol	70°	I	A	I	I
Decyl Butyl Phthalate	70°	X	X	X	X
Denatured Alcohol	70°	I	A	B	I
Diacetone Alcohol	70°	B	A	B	B
Diamyl Phenol	70°	X	X	X	X
Dibromobenzene	70°	I	X	I	I
Dibutyl Amine	70°	I	X	I	I
Dibutyl Phthalate	70°	X	X	X	X
Dibutyl Sebacate	70°	I	X	I	I

Thermoplastic Hose					
D	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
		<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data			
Dicalcium Phosphate	70°	B	A	B	I
Dichlorobenzene	70°	X	X	X	X
Dichlorobutane	70°	I	X	I	I
Dichlorodibromomethane	70°	X	X	X	X
Dichloroethane	70°	I	X	I	I
Dichloroethyl Ether	70°	I	X	I	X
Dichloroethylene	70°	I	X	I	X
Dichlorohexane	70°	I	X	I	X
Dichloromethane	70°	I	X	I	X
Dichloropentane	70°	I	X	I	X
Dichloropropane	70°	I	X	I	X
Diesel Oil	70°	I	B	X	X
Diethylamine	70°	I	I	I	I
Diethyl Benzene	70°	I	X	I	X
Diethyl Ketone	70°	I	X	I	I
Diethyl Oxalate	70°	I	X	I	I
Diethyl Phthalate	70°	I	X	I	I
Diethyl Sebacate	70°	I	X	I	I
Diethylene Glycol	70°	I	B	I	I
Diisobutyl Ketone	70°	I	X	I	I
Diisooctyl Adipate	70°	I	X	I	I
Diisooctyl Phthalate	70°	I	X	I	I
Diisodecyl Adipate	70°	I	X	I	I
Diisopropyl Amine	70°	I	X	I	I
Diisopropyl Ketone	70°	I	X	I	I
Dimethyl Amine	70°	I	X	I	I
Dimethyl Benzene	70°	I	X	I	I
Dimethyl Ketone	70°	I	X	I	I
Dimethyl Phthalate	70°	I	X	I	I
Dinitrobenzene	70°	I	X	I	I
Diocetyl Adipate	70°	I	X	I	I
Diocetyl Phthalate	70°	X	X	X	X
Diocetyl Sebacate	70°	I	X	I	I

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
A = May be used for Continuous Service B = May be used for Intermittent Service X = Do not use I = Insufficient data	Temperature (°F)	Polyurethane/Spirathane™	PVC/Plivic® Plus	TPE/Arvac SW	TPR/Green Hornet XF
	70°	I	X	I	I
Diphenyl Phthalate	70°	I	X	I	I
Dipropyl Ketone	70°	A	A	A	B
Disodium Phosphate	70°	I	X	I	I
Divinyl Benzene	70°	I	X	I	I
Dodecyl Benzene	70°	I	X	I	I
E					
Ethanol	70°	A	A	A	A
Ethanol Amine	70°	B	A	B	I
Ethyl Acetate	70°	X	X	X	B
Ethyl Acetoacetate	70°	I	X	I	I
Ethyl Acrylate	70°	X	X	X	I
Ethyl Alcohol	70°	A	A	A	A
Ethyl Benzene	70°	I	X	I	X
Ethyl Butanol	70°	I	A	I	I
Ethyl Butyl Acetate	70°	I	X	I	I
Ethyl Butyl Alcohol	70°	I	A	I	I
Ethyl Butyl Ketone	70°	I	X	I	I
Ethyl Chloride	---	X	X	X	X
Ethyl Dichloride	70°	X	X	X	X
Ethyl Ether	---	X	X	X	X
Ethyl Formate	70°	I	X	I	I
Ethyl Hexyl Acetate	70°	I	X	I	I
Ethyl Hexyl Alcohol	70°	I	A	I	I
Ethyl Iodide	70°	X	X	X	X
Ethyl Isobutyl Ether	70°	I	X	I	I
Ethyl Methyl Ketone	70°	X	X	X	X
Ethyl Oxalate	70°	I	X	I	I
Ethyl Phthalate	70°	I	X	I	I
Ethyl Propyl Ether	70°	I	X	I	I
Ethyl Propyl Ketone	70°	X	X	X	I
Ethylene Bromide	70°	X	X	X	X
Ethylene Chloride	70°	X	X	X	X
Ethylene Dibromide	70°	X	X	X	X

Thermoplastic Hose					
A = May be used for Continuous Service B = May be used for Intermittent Service X = Do not use I = Insufficient data	Temperature (°F)	Polyurethane/Spirathane™	PVC/Plivic® Plus	TPE/Arvac SW	TPR/Green Hornet XF
Ethylene Dichloride	70°	X	X	X	X
Ethylene Glycol	70°	A	A	A	A
F					
Ferric Bromide	70°	A	A	A	B
Ferric Chloride	70°	A	A	A	A
Ferric Sulfate	70°	A	A	A	A
Ferrous Acetate	70°	A	A	A	I
Ferrous Chloride	70°	A	A	A	B
Ferrous Hydroxide	70°	I	A	A	I
Ferrous Sulfate	70°	A	A	A	A
Fluorine	70°	X	X	X	X
Fluosilicic Acid	70°	A	A	A	B
Formaldehyde	70°	X	X	B	A
Formalin	70°	I	I	A	A
Formic Acid (less than 50%)	70°	B	B	A	A
Formic Acid (more than 50%)	70°	B	X	X	B
Freon® 12	70°	B	B	B	X
Freon® 22	70°	X	X	X	X
Fuel A (ASTM)	70°	A	B	B	I
Fuel B (ASTM)	70°	A	B	X	X
Fuel Oil	70°	A	B	B	X
Furfural	70°	X	X	X	X
G					
Gasoline	70°	X	X	X	X
Glacial Acetic Acid	70°	X	B	I	I
Glycerin	70°	A	A	A	B
Grease	70°	A	A	A	B
H					
Heptane	70°	A	A	X	X
Hexane	70°	A	A	B	X
Hexanol	70°	B	A	B	B
Hexyl Methyl Ketone	70°	I	X	I	I
Hexylene Glycol	70°	I	B	I	I

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## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data	Temperature (°F)	Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
		H			
Hexyl-Alcohol	70°	I	A	I	I
Hydrobromic Acid	70°	A	A	B	B
Hydrochloric Acid	70°	A	B	A	A
Hydrofluoric Acid	70°	A	B	A	B
Hydrofluosilicic Acid	70°	B	B	I	I
Hydrogen Dioxide 10%	70°	I	A	A	I
Hydrogen Dioxide (over 10%)	70°	I	A	A	I
Hydrogen Gas	70°	X	X	X	B
Hydrogen Peroxide 10%	70°	A	A	A	B
Hydrogen Peroxide (over 10%)	70°	A	A	A	B
I					
Iodine	70°	X	X	X	X
Iron Acetate	70°	I	A	I	I
Iron Hydroxide	70°	I	A	A	I
Iron Salts	70°	I	A	A	B
Iron Sulfate	70°	I	A	A	A
Iron Sulfide	70°	I	A	I	I
Isoamyl Acetate	70°	I	X	I	I
Isoamyl Alcohol	70°	I	A	I	I
Isoamyl Bromide	70°	X	X	X	I
Isoamyl Butyrate	70°	I	X	I	I
Isoamyl Chloride	70°	I	X	I	I
Isoamyl Ether	70°	I	X	I	I
Isoamyl Phthalate	70°	I	X	I	I
Isobutanol	70°	I	A	I	A
Isobutyl Acetate	70°	I	X	I	I
Isobutyl Alcohol	70°	I	A	I	A
Isooctane	70°	I	B	X	I
Isopentane	---	I	B	I	I
Isopropanol	70°	I	A	I	A
Isopropyl Acetate	70°	X	X	X	I
Isopropyl Alcohol	70°	A	A	B	B
Isopropyl Benzene	70°	I	X	I	X

Thermoplastic Hose					
<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data	Temperature (°F)	Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
		I			
Isopropyl Chloride	---	I	X	I	I
J					
Jet Fuels	---	X	X	X	X
K					
Kerosene	70°	X	B	X	X
Ketones	70°	X	X	X	X
L					
Lead Acetate	70°	A	A	A	B
Lead Sulfate	70°	I	X	I	I
Linseed Oil	70°	A	A	A	X
Lubricating Oils	70°	A	B	B	I
M					
MIBK	70°	I	X	I	X
M.E.K.	70°	X	X	B	X
Magnesium Acetate	70°	I	A	I	I
Magnesium Chloride	70°	A	A	A	A
Magnesium Hydrate	70°	I	A	A	B
Magnesium Hydroxide	70°	A	A	A	A
Magnesium Sulfate	70°	A	A	A	A
Malic Acid	70°	B	A	B	B
Manganese Sulfate	70°	I	A	I	I
Manganese Sulfide	70°	I	A	I	I
Manganese Sulfite	70°	I	A	I	I
Methanol	70°	A	A	A	A
Methallyl Alcohol	70°	I	A	I	I
Methyl (Wood) Alcohol	70°	B	B	A	A
Methyl Acetate	70°	X	X	X	X
Methyl Acetoacetate	70°	I	X	I	I
Methyl Acetone	70°	I	X	I	X
Methyl Amyl Acetate	70°	X	X	X	X
Methyl Amyl Alcohol	70°	I	A	I	I
Methyl Amyl Ketone	70°	I	X	A	I
Methyl Benzene	70°	I	X	I	X

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
M	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
		<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data			
Methyl Butanol	70°	I	B	I	X
Methyl Butyl Ketone	70°	I	X	I	I
Methyl Cellosolve	70°	I	B	I	I
Methyl Chloride	---	X	X	X	X
Methyl Ethyl Ketone	70°	X	X	X	X
Methyl Hexyl Ketone	70°	X	X	X	X
Methyl Isobutyl Ketone	70°	X	X	X	X
Methyl Isopropyl Ketone	70°	X	X	X	X
Methyl Normal Amyl Ketone	70°	X	X	X	X
Methylallyl Chloride	70°	X	X	X	X
Methyl Propyl Ether	70°	I	I	A	I
Methyl Propyl Ketone	70°	I	X	I	I
Methylallyl Acetate	70°	I	X	I	I
Methylene Bromide	70°	X	X	X	I
Methylene Chloride	---	X	X	X	X
Mineral Spirits	70°	I	B	I	I
Monochlorobenzene	70°	X	X	X	X
Monochlorodibluoromethane	70°	I	X	I	I
Muriatic Acid	70°	I	B	A	B
N					
Naphtha	70°	B	B	B	X
Naphthalene	70°	B	X	B	X
Natural Gas	No hose is recommended for this service				
Nickel Chloride	70°	A	A	A	B
Nickel Nitrate	70°	A	A	A	B
Nickel Sulfate	70°	A	A	A	A
Nitric Acid 10%	70°	A	A	A	B
Nitric Acid 20%	70°	A	B	A	B
Nitric Acid 30%	70°	B	B	A	B
Nitric Acid 30-70%	70°	X	X	X	X
Nitro Benzene	70°	X	X	X	X
Nitrogen Gas	70°	A	A	A	A
Nitrous Oxide	70°	A	A	A	B

Thermoplastic Hose					
O	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
		<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data			
Octanol	70°	I	A	I	B
Octyl Acetate	70°	I	X	I	I
Oil Petroleum	70°	A	B	A	I
Oleic Acid	70°	B	B	B	B
Oleum	70°	X	X	X	X
Orthodichlorobenzene	70°	I	X	I	I
Orthodichlorobenzol	70°	I	X	I	I
Oxalic Acid	70°	A	A	A	A
Oxygen	No hose is recommended for this service				
Ozone	70°	B	B	B	B
P					
Palmitic Acid	70°	B	B	B	B
Papermakers Alum	70°	I	A	I	I
Paradichlorobenzol	70°	I	X	I	I
Paraffin	70°	B	A	B	I
Pentachloroethane	70°	I	I	X	I
Pentane	70°	B	B	I	X
Pentanol	70°	I	A	I	I
Perchloroethylene	70°	X	X	X	X
Petroleum Ether (Ligroin)	70°	A	B	I	X
Petroleum - Crude	70°	A	B	X	X
Petroleum Oils	70°	A	B	X	X
Phenol	70°	X	X	X	X
Phenolsulfonic Acid	70°	I	X	I	I
Phenyl Chloride	70°	I	I	X	X
Phosphoric Acid 10%	70°	A	A	A	A
Phosphoric Acid 10%-85%	70°	B	B	A	B
Polyethylene Glycol	70°	B	B	A	B
Polypropylene Glycol	70°	B	B	A	B
Potassium Acetate	70°	I	A	A	B
Potassium Bisulfate	70°	A	A	A	B
Potassium Bisulfite	70°	A	A	A	B
Potassium Carbonate	70°	A	A	A	A

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

### Thermoplastic Hose

**A** = May be used for Continuous Service  
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**X** = Do not use  
**I** = Insufficient data

	Temperature (°F)	Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
<b>P</b>					
Potassium Chloride	70°	A	A	A	A
Potassium Chromate	70°	A	A	A	B
Potassium Dichromate	70°	A	A	A	B
Potassium Hydrate	70°	I	A	I	B
Potassium Hydroxide	70°	B	A	A	B
Potassium Nitrate	70°	A	A	A	B
Potassium Silicate	70°	I	A	I	B
Potassium Sulfate	70°	A	A	A	B
Potassium Sulfide	70°	A	A	A	B
Potassium Sulfite	70°	A	A	A	B
Propanediol	70°	I	A	I	B
Propanol	70°	I	A	I	B
Propyl Acetate	70°	I	X	I	I
Propyl Alcohol	70°	A	A	B	B
Propyl Chloride	---	X	X	X	X
Propylene Dichloride	70°	X	X	X	X
Propylene Glycol	70°	A	I	A	A
<b>S</b>					
Sea Water	70°	A	A	A	A
Silicate of Soda	70°	I	B	A	A
Soda Ash	70°	A	A	A	A
Soda, Caustic	70°	A	B	A	A
Soda, Lime	70°	I	B	A	I
Soda, Niter	70°	I	B	I	A
Sodium Acetate	70°	A	B	A	B
Sodium Aluminate	70°	I	A	A	B
Sodium Bisulfate	70°	A	A	A	A
Sodium Bisulfite	70°	I	A	A	A
Sodium Carbonate	70°	A	A	A	A
Sodium Chloride (brine)	70°	A	A	A	A
Sodium Chromate	70°	I	A	I	I
Sodium Dichromate	70°	A	A	A	B
Sodium Hydrate	70°	I	A	I	I

### Thermoplastic Hose

**A** = May be used for Continuous Service  
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**X** = Do not use  
**I** = Insufficient data

	Temperature (°F)	Polyurethane/Spirathane™	PVC/Plivoc® Plus	TPE/Arvac SW	TPR/Green Hornet XF
<b>S</b>					
Sodium Hydrochlorite	70°	A	A	B	B
Sodium Hydroxide	70°	A	A	A	A
Sodium Hypochlorite	70°	A	A	A	A
Sodium Nitrate	70°	A	A	A	A
Sodium Silicate	70°	A	A	A	A
Sodium Sulfate	70°	A	A	A	A
Sodium Sulfide	70°	A	A	A	A
Sodium Sulfite	70°	A	A	A	A
Sodium Thiosulfate	70°	A	A	A	A
Stannic Chloride	70°	A	A	A	B
Stannic Sulfide	70°	I	A	I	I
Stannous Chloride	70°	I	A	I	I
Stannous Sulfide	70°	I	A	I	I
Stearic Acid	70°	A	A	A	A
Sulfonic Acid	70°	I	B	I	I
Sulfur Dioxide (Liquid)	70°	X	X	X	X
Sulfuric Acid (Dry)	70°	A	A	A	A
Sulfuric Acid 25%	70°	A	A	A	A
Sulfuric Acid 25-50%	70°	A	A	A	A
Sulfuric Acid 50-96%	70°	X	X	B	B
Sulfuric Acid Fuming	70°	X	X	X	X
Sulfurous Acid 10%	70°	B	B	B	A
Sulfurous Acid 10-75%	70°	X	X	X	X
<b>T</b>					
Tannic Acid	70°	B	B	B	A
Tar	---	I	X	I	I
Tartaric Acid	70°	A	A	A	A
Tertiary Butyl Alcohol	70°	B	B	B	I
Tetrachlorobenzene	70°	I	X	I	I
Tetrachloroethane	70°	I	X	X	X
Tetrachloroethylene	70°	I	X	X	X
Tetraethylene Glycol	70°	I	B	I	I
Tetrachloromethane	70°	I	X	I	X

## SPIRAFLEX HOSE CHEMICAL RESISTANCE GUIDE

Thermoplastic Hose					
	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Pliovic® Plus	TPE/Arvac SW	TPR/Green Hornet XF
<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data					
T					
Tetrachloronaphthalene	70°	I	X	I	X
Tetrahydrofuran	70°	X	X	X	X
Tin Chloride	70°	B	B	B	B
Tin Tetrachloride	70°	B	B	B	B
THF	70°	I	X	I	X
Toluene	70°	X	X	X	X
Toluidine	70°	I	X	I	I
Toluol	70°	X	X	X	X
Transmission Oil "A"	70°	A	B	I	I
Tributyl Phosphate	70°	X	X	X	X
Trichlorobenzene	70°	X	X	X	X
Trichloroethane	70°	I	X	X	X
Trichloroethylene	70°	X	X	X	X
Trichloropropane	70°	I	I	X	X
Triethanolamine	70°	B	B	B	I
Triethylene Glycol	70°	I	B	I	B
Triphenyl Phosphate	70°	B	X	I	I
Trisodium Phosphate	70°	B	B	A	A
Turpentine	70°	B	B	A	X

Thermoplastic Hose					
	Temperature (°F)	Material			
		Polyurethane/Spirathane™	PVC/Pliovic® Plus	TPE/Arvac SW	TPR/Green Hornet XF
<b>A</b> = May be used for Continuous Service <b>B</b> = May be used for Intermittent Service <b>X</b> = Do not use <b>I</b> = Insufficient data					
U					
Urea	70°	A	A	A	A
Undecanol	70°	I	A	I	I
V					
V.M. & P. Naptha	70°	I	B	I	I
Vinyl Acetate	70°	I	X	I	X
Vinyl Benzene	70°	I	X	I	X
Vinyl Chloride	---	X	X	X	X
W					
Water	70°	A	A	A	A
Wood Alcohol	70°	B	B	B	A
X					
Xylene (Xylol)	70°	X	X	X	X
Xylidine	70°	I	X	I	I
Z					
Zinc Carbonate	70°	I	A	A	B
Zinc Chloride	70°	A	A	A	B
Zinc Chromate	70°	A	A	A	I
Zinc Sulfate	70°	A	A	A	B



**30.00**

**APPENDIX C**



## GENERAL INFORMATION

### CHEMICAL PROPERTIES OF FLUROETHYLENEPROPYLENE (FEP)

#### AS STATED BY E.I. DU PONT DE NEMOURS

FEP fluorocarbon resins are attacked by certain halogenated complexes containing fluorine including: chlorine trifluoride, bromine trifluoride, iodine pentafluoride and fluorine itself.

FEP is also attacked by such metals as sodium or potassium, especially in their molten states. Great care should be used when mixing finely divided fluorocarbon polymers with finely divided metals, such as aluminum, magnesium or barium, since these can react violently if ignited or heated to a high temperature. Certain complexes of these metals with ammonia or naphthalene (in either solvent) also attack the products. Certain metal hydrides such as boranes, aluminum chloride and certain amines have also been observed to attack fluorocarbon resins at elevated temperatures.

The following materials are inert to FEP:

Alcohols	Aldehydes
Aliphatic Hydrocarbons	Anhydrides
Aromatics	Chlorocarbons
Esters	Ethers
Fluorocarbons	Inorganic Bases
Inorganic Oxidizing Agents	Ketones
Organic Acids	Salt Solutions
Strong Mineral Acids	

FEP is a registered trademark with E.I. du Pont de Nemours.

### METHOD FOR STEAM CLEANING GOODYEAR® ENGINEERED PRODUCTS (CHEM ONE, VIPER, FABCHEM AND FABCHEM ARC)

#### 5 IMPORTANT REQUIREMENTS

- 1) Hose must be **open-ended** during steam cleaning.
- 2) Temperature of Steam—**Maximum 288°F**.
- 3) Length of Cleaning Time—**5 to 10 minutes**...Not more than 15 minutes.
- 4) Care must be taken **not to score** the tube (liner) with the nozzle or wand end.
- 5) Prolonged steam jet contact on a specific area of the tube (liner) **could cause tube damage**.

## GENERAL INFORMATION

### INFINITY™ / PALADIN® DROP HOSE COUPLING PROCEDURE WITH INSTA-LOCK™ FITTINGS

To make an Electrically Continuous (EC) assembly, the static wire must be terminated to the couplings as the static dissipating property of the tube alone is not sufficient to meet NAHAD<sup>1</sup> or RMA<sup>2</sup> specifications.

#### **Infinity™**

Locate and pull on the static wire between the fabric plies, bend approximately one inch of the static wire under the tube to make contact with the coupling stem. Grounding staple is also an acceptable method.

#### **Paladin®**

Locate the static wire between the fabric plies. Insert one leg of a grounding staple in the middle of the wire. Ensure that the other leg of the grounding staple is in contact with the coupling stem.

#### **ATTACHMENT OPTIONS:**

**Crimp Sleeve**—Refer to the Goodyear® Engineered Products Crimp Assembly Manual for crimp specifications. Current Crimp Sleeve options are listed on page 261 of this catalogue. The use of PVC banding coil is not required with crimp sleeve.

**Band Clamps**—PVC Banding Coils are required when using this method of attachment. Order the appropriate Banding Coil to match your hose selection. Follow the procedures below when using the Banding Coils:

1. Insert stem inside hose end.
2. Apply sufficient banding coil in between the hose outer PVC helix to insure complete coverage under the band clamps position.
3. Place the banding coil tightly around the hose to properly fill the cover depressions. Clamp the first band, re-tighten the banding coil and clamp the second band.
4. Please refer to the NAHAD guidelines for detailed instructions.

#### **Banding coil selection**

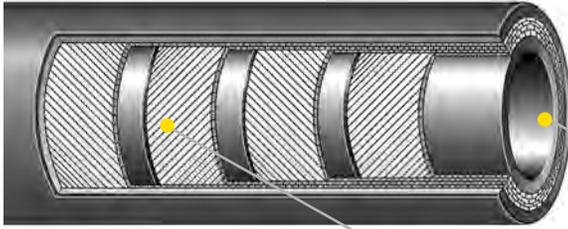
- For 2" I.D. hose use 2" I.D. banding coil.
- For 3" I.D. hose use 3" I.D. banding coil.
- For 4" I.D. hose use 4" I.D. banding coil.

<sup>1</sup> NAHAD (National Association of Hose and Accessories Distributors)

<sup>2</sup> RMA (Rubber Manufacturers Association)

## GENERAL INFORMATION

### BASIC HOSE CONSTRUCTION



**COVER** The cover is the outermost or visible area of the hose. It is designed to be a protective covering against wear, abrasion, cuts, weather, and the general destructive action encountered in normal service.

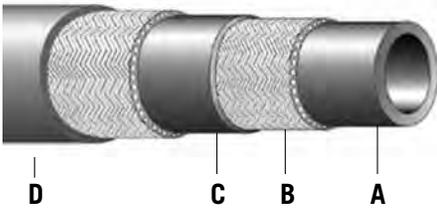
**BODY or CARCASS** The body reinforcement is the supporting structure of the hose. It can range from simple to complex combinations and consists of cord, yarn, fabric, wire, or any combination of these.

**TUBE OR LINING** The tube is the inner-most element of a hose and is compounded to provide resistance to the material being carried. With the wide range of rubber compounds available, a hose can be built to withstand abrasive materials, chemicals, oil and a wide variety of other materials.

### THE FOUR BASIC METHODS OF HOSE CONSTRUCTION

Although we make more than 2,000 types of hose for specialized applications, there are only four basic construction methods used. Since each of these four methods embodies certain fundamental characteristics that make it particularly suitable for certain functions, an understanding of these methods may assist you in making the best use of this catalogue. Keep in mind that a reference to any one of these types of construction will imply all the characteristics and benefits outlined here plus specific features attained through the proper compounding of rubber, choice materials, and variation in plies and thickness to ensure that each hose is exactly right for the job for which it is designed.

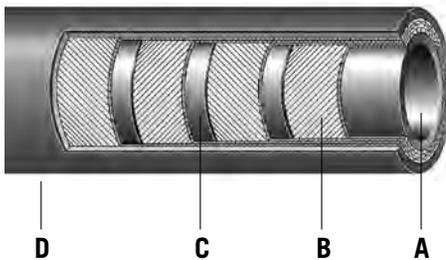
Type 1



**TYPE 1: Vertical Braided Hose**  
Entire hose length cured in one operation.

- A. Extruded seamless tube.
- B. Seamless reinforcing braids of synthetic textile wire, or other material – applied by high speed vertical or horizontal braiders.
- C. Rubber layers between braids establish positive bond between braids when vulcanized.
- D. Extruded, seamless cover.

Type 2



**TYPE 2: Spiral Hose**  
Built by machine with either textile or wire cord reinforcement applied so that each ply is laid at a given angle for maximum dimensional stability.

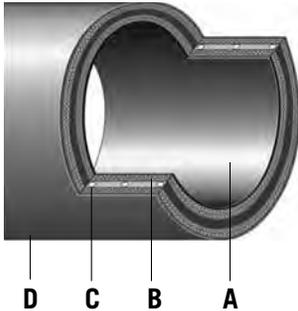
- A. Extruded or calendered tube.
- B. Reinforcement of synthetic textile wire or other material.
- C. Rubber layers between reinforcement plies to establish positive bond.
- D. Cover.

## GENERAL INFORMATION

### BASIC HOSE CONSTRUCTION

#### THE FOUR BASIC METHODS OF HOSE CONSTRUCTION (continued)

Type 3

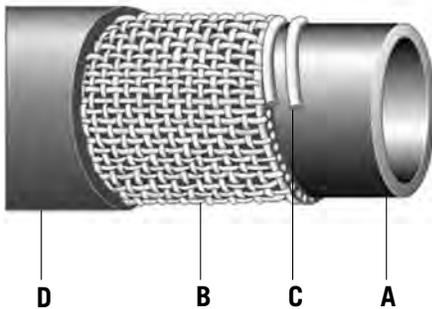


**TYPE 3:** Hand-built Spiral-plied Hose

Built by hand on a mandrel. Cured under pressure applied from outside by cloth wraps and steam.

- A. Calendered, or “built-up” tube to fit service.
- B. Tailor-made spiral-wrapped fabric.
- C. Wire reinforcement where needed.
- D. Cover stock of selected gauge and compound. Wrap cured.

Type 4



**TYPE 4:** Knitted Hose

- A. Extruded seamless tube.
- B. Seamless woven textile jacket.
- C. Interwoven wire helix reinforcement where needed.
- D. Extruded seamless cover.

### ADVANTAGES

**TYPE 1 Braided Hose**

Flexible. High resistance to kinking. Cover either smooth or wrapped. Available in long continuous lengths. Excellent tensile strength.

**TYPE 2 Spiral Hose**

Extremely flexible. Smooth bore, uniform tube. High strength with long length capability.

**TYPE 3 Hand-Built Spiral-Plied Hose**

Craftsman-built to special requirements. Wide variation in sizes, constructions and materials. Built-in strength to fit most rugged job requirements. Couplings, fittings, nipples, flanges and beaded ends can be built in. Available in lengths up to 50 feet, in sizes up to 18 inches. On larger diameters, consult your Goodyear® Engineered Products representative.

## GENERAL INFORMATION

### DEFINITIONS OF HOSE ENDS

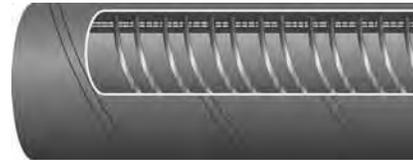


#### PLAIN END

All hose construction elements (including wire, if wire is used as a reinforcing member) are exposed. The hose always has the same inside diameter throughout. In the case of certain hand-built specifications having wire reinforcement, the wire and fabric reinforcement are not exposed.

All vertical spiral hose is available only with plain ends.

Horizontal spiral and wrapped ply machine-built hose is furnished with plain ends unless otherwise specified in the pricebook.



#### BUILT-IN NIPPLE END

The hose end is integrally built around and bonded to the nipple body. The hose reinforcing materials are also anchored to the nipple.

The nipples used are generally fabricated from pipe. Nipples made from standard pipe will be full bore only when pipe 12" and under is used since nominal pipe sizes over 12" are described by pipe OD and not ID.

Available only in hand-built hose constructions.



#### SWAGED END

Primarily used on petroleum OS&D dock hose as an alternative to built-in nipples.

The steel (carbon or stainless) stem/coupling accommodates threaded, slip-on or welded flanged ends. Stem/coupling attached to hose with swaged steel ferrule over the cover.



#### ENLARGED END

The hose end is enlarged to accommodate the outside diameter of the shank of a fitting plus the depth of the shank. The helical wire is terminated at the enlarged end.

The inside diameter of a "standard" enlarged end is the same dimension as the outside diameter of the same nominal pipe size. (Example—6" ID hose enlarged to 6 5/8" at the end, handles a 6" size pipe which has a 6 3/4" OD.)

Normally used in hand-built hose constructions.



## GENERAL INFORMATION

### DEFINITIONS OF HOSE ENDS



#### INTEGRAL RUBBER TAPERED NOZZLE END

The inside diameter and the outside diameter of the hose end are gradually tapered down to form a nozzle. The hose reinforcement is also extended to the end of the nozzle. A rubber end cap is then added to protect the reinforcement and properly shape the nozzle.

This type of nozzle is available only in non-wire inserted horizontal spiral and wrapped ply machine-built hose.

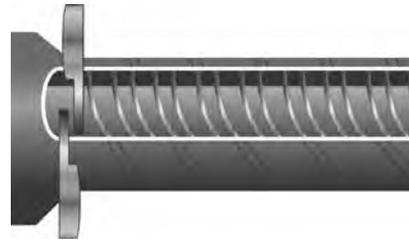


#### RUBBER BEADED END

A flared bell shape, molded as an integral part of the hose. The reinforcing fabric of the hose body is extended beyond the straight portion of the hose and anchored around a circular steel reinforcing ring.

A reattachable split malleable iron flange is placed behind the rubber bead to act as a metal bearing surface for bolt heads and nuts. Bolts used to connect mating flanges pass over the outside diameter of the beaded end.

Normally used in hand-built hose constructions.

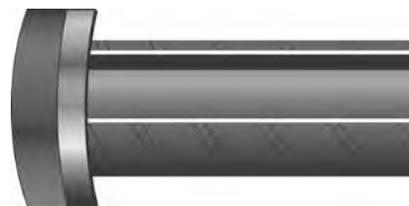


#### INTEGRAL RUBBER FLANGED END

Shaped similar to a metal pipe flange. It is molded as an integral part of the hose with the tube, fabric reinforcement (not wire) and cover extending to the outside diameter of the rubber flange.

The rubber flange has holes to match customer requirements. In addition, solid metal "backup" rings (drilled to match the rubber flange holes) are always placed behind the rubber flange to provide a metal bearing surface for bolt heads and nuts.

Available only in hand-built hose constructions.

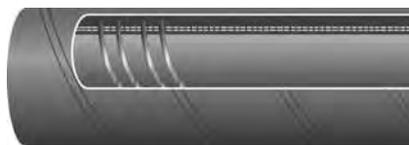


#### SOFT END

The helical wire reinforcement is terminated several inches back from the end of the hose.

When a hose has either a corrugated cover or tube or both, a soft end is generally used and always has a smooth inside diameter and outside diameter.

Normally used in hand-built hose constructions.



## GENERAL INFORMATION

### HOSE TESTING METHODS

Reprinted from RMA hose handbook IP-2 2003

#### SAFETY WARNING:

**Testing can be dangerous and should be done only by trained personnel using proper tools and procedures. Failure to follow such procedures might result in damage to property and/or serious bodily injury.**

The Rubber Manufacturers Association (RMA) recognizes, accepts and recommends the testing methods of the American Society for Testing and Materials (ASTM).

Unless otherwise specified, all hose tests are to be conducted in accordance with ASTM Method No. D-380 (latest revision). Where an ASTM D-380 test is not available, another test method should be selected and described in detail.

RMA participates with ASTM under the auspices of the American National Standards Institute (ANSI) in Technical Committee 45 (TC45) of The International Organization for Standardization (ISO) in developing both hose product and hose test method standards. Many of the hose test method standards published by ISO duplicate or closely parallel those shown in ASTM D-380. Many are unique and, in those cases, the RMA may be able to provide the necessary test standard references which may be purchased from the American National Standards Institute (ANSI).

### HYDROSTATIC PRESSURE TESTS

#### HYDROSTATIC PRESSURE TESTS ARE CLASSIFIED AS FOLLOWS:

##### 1. DESTRUCTIVE TYPE

- |               |              |
|---------------|--------------|
| a. Burst test | b. Hold test |
|---------------|--------------|

##### Destructive Tests

Destructive tests are conducted on short specimens of hose, normally 18 inches (460 mm) to 36 inches (915 mm) in length and, as the name implies, the hose is destroyed in the performance of the test.

- a. Burst pressure is recorded as the pressure at which actual rupture of a hose occurs.
- b. A hold test, when required, is a means of determining whether weakness will develop under a given pressure for a specified period of time.

##### 2. NON-DESTRUCTIVE TYPE

- |   |                               |               |                              |
|---|-------------------------------|---------------|------------------------------|
| a. Proof pressure test                                  | c. Change in outside diameter | e. Rise test  | h. Volumetric expansion test |
| b. Change in length test<br>(elongation or contraction) | or circumference test         | f. Twist test |                              |
|   | d. Warp test                  | g. Kink test  |                              |

##### Non-Destructive Tests

Non-destructive tests are conducted on a full length of a hose or hose assembly. These tests are for the purpose of eliminating hose with defects which cannot be seen by visual examination or in order to determine certain characteristics of the hose while it is under internal pressure.

- a. A proof pressure test is normally applied to hose for a specified period of time. On new hose, the proof pressure is usually 50% of the minimum specified burst except for woven jacket fire hose where the proof pressure is twice the service test pressure marked on the hose (67% of specified minimum burst). Hydrostatic tests performed on fire hose in service should be no higher than the service test pressure referred to above. The regulation of these pressures is extremely important so that no deteriorating stresses will be applied, thus weakening a normal hose.
- b. With some type of hose, it is useful to know how a hose will act under pressure. All change in length tests, except when performed on wire braid or wire spiralled hose, are made with original length measurements taken under a pressure of 10 psi (0.069 MPa). The specified pressure, which is normally the proof pressure, is applied and immediate measurement of the characteristics desired are taken and recorded.

## GENERAL INFORMATION

### HOSE TESTING METHODS

#### HYDROSTATIC PRESSURE TESTS (continued):

Percent length change (elongation or contraction) is the difference between the length at 10 psi (0.069 MPa) (except wire braided or wire spiralled) and that at the proof pressure times 100 divided by the length at 10 psi (0.069 MPa). Elongation occurs if the length of the hose under the proof pressure is greater than at a pressure of 10 psi (0.069 MPa). Contraction occurs if the length at the proof pressure is less than at 10 psi (0.069 MPa). In testing wire braided or spiralled hose, the proof pressure is applied and the length recorded. The pressure is then released and, at the end of 30 seconds, the length is measured; the measurement obtained is termed the "original length."

- c. Percent change in outside diameter or circumference is the difference between the outside diameter or circumference at 10 psi (0.069 MPa) and that obtained under the proof pressure times 100 divided by the outside diameter or circumference at 10 psi (0.069 MPa). Expansion occurs if the measurement at the proof pressure is greater than at 10 psi (0.069 MPa). Contraction occurs if the measurement at the proof pressure is less than at 10 psi (0.069 MPa).
- d. Warp is the deviation from a straight line drawn from fitting to fitting; the maximum deviation from this line is warp. First, a measurement is taken at 10 psi (0.069 MPa) and then again at the proof pressure. The difference between the two, in inches, is the warp. Normally this is a feature measured on woven jacket fire hose only.
- e. Rise is a measure of the height a hose rises from the surface of the test table while under pressure. The difference between the rise at 10 psi (0.069 MPa) and at the proof pressure is reported to the nearest 0.25 inch (6.4 mm). Normally, this is a feature measured on woven jacket fire hose only.
- f. Twist is a rotation of the free end of the hose while under pressure. A first reading is taken at 10 psi (0.069 MPa) and a second reading at proof pressure. The difference, in degrees, between the 10 psi (0.069 MPa) base and that at the proof pressure is the twist. Twist is reported as right twist (to tighten couplings) or left twist. Standing at the pressure inlet and looking toward the free end of a hose, a clockwise turning is right twist and counterclockwise is left twist.
- g. Kink test is a measure of the ability of woven jacket hose to withstand a momentary pressure while the hose is bent back sharply on itself at a point approximately 18 inches (457 mm) from one end. Test is made at pressures ranging from 62% of the proof pressure on sizes 3 inches (76 mm) and 3.5 inches (89 mm) to 87% on sizes under 3 inches (76 mm). This is a test applied to woven jacket fire hose only.
- h. Volumetric expansion test is applicable only to specific types of hose, such as hydraulic or power steering hose, and is a measure of its volumetric expansion under ranges of internal pressure.

#### DESIGN CONSIDERATIONS

In designing hose, it is customary to develop a design ratio, which is a ratio between the minimum burst and the maximum working pressure.

Burst test data is compiled and the minimum value is established by accepted statistical techniques. This is done as a check on theoretical calculations, based on the strength of reinforcing materials and on the characteristics of the method of fabrication.

Minimum burst values are used as one factor in the establishment of a reasonable and safe maximum working pressure.

#### **MAXIMUM WORKING PRESSURE IS ONE OF THE ESSENTIAL OPERATING CHARACTERISTICS THAT A HOSE USER MUST KNOW AND RESPECT TO ASSURE SATISFACTORY SERVICE AND OPTIMUM LIFE.**

It should be noted that design ratios are dependent on more than the minimum burst. The hose technologist must anticipate natural decay in strength of reinforcing materials, and the accelerated decay induced by the anticipated environments in which the hose will be used and the dynamic situations that a hose might likely encounter in service.

Including all considerations, the following recommended design ratios are given for newly manufactured hose:

1. Water hose up to 150 psi WP: 3:1
2. Hose for all other liquids, solid materials suspended in liquids or air, and water hose over 150 psi WP: 4:1
3. Hose for compressed air and other gases: 4:1
4. Hose for liquid media that immediately changes into gas under standard atmospheric conditions: 5:1
5. Steam hose: 10:1

## GENERAL INFORMATION

### ELECTRICAL RESISTANCE TESTS

#### FOR HOSE AND HOSE ASSEMBLIES

##### 1.0 Purpose:

This procedure specifies methods for performing electrical resistance tests on rubber and/or plastic hose and hose assemblies.

##### 2.0 Scope:

These procedures are intended to test electrical conductive, antistatic and nonconductive (insulating) hoses, along with electrical continuity or discontinuity between fittings.

#### WARNING:

**Hydraulic hoses used on power and telephone mobile equipment should be tested to SAE 100R8 requirements.**

##### 3.0 Definitions:

- 3.1 Antistatic Hose - Antistatic hose constructions are those that are capable of dissipating the static electricity buildup that occurs during the high velocity flow of material through a hose.
- 3.2 Conductive Hose – Conductive hose constructions are those that are capable of conducting an electrical current.
- 3.3 Direct Current (DC): Flow of electrical current in one direction at a constant rate.
- 3.4 Electrical Conductivity: A measure of the ease with which a material is capable of conducting an electrical current.  
Conductivity = 1/Resistance.
- 3.5 Electrical Resistance: Property of an object to resist or oppose the flow of an electrical current.
- 3.6 Non-Conductive (Insulating) Hose: Non-conductive hose constructions are those that resist the flow of electrical current.
- 3.7 Ohm's Law: The electrical current, I, is equal to the applied voltage, V, divided by the resistance, R. In practical terms, the higher the electrical resistance at a constant voltage, the lower the electrical current flow through an object.
- 3.8 Ohm: The amount of resistance that limits the passage of current to one ampere when a voltage of one volt is applied to it.

##### 4.0 Apparatus:

4.1 Test Instruments: All test instruments shall have a gauge reliability and reproducibility (R&R) of less than 30%. Some instruments made to measure high electrical resistance may have an internal protection circuit built in which will cause test errors in the less than one megohm range.

During the test, no more than 3 watts (W) shall be dissipated in the specimen, to prevent erroneous results due to effects of temperature. The power dissipated shall be determined by the square of the open-circuit voltage divided by the measured resistance, see formula 1 (Power Dissipation).

$$1) \text{ Power Dissipation} = \frac{(\text{Voltage})^2}{\text{Resistance in ohms}}$$

To determine the electrical resistance of non-conductive hose, the test should be made with an instrument designed specifically for measuring insulation resistance, having a nominal open-circuit voltage of 500 Volts D.C., or with any other instrument known to give comparable results. For measuring electrical discontinuity, a 1,000 Volt D.C. source may be used instead of a 500 Volt D.C. source.

For hoses with a conductive tube or cover, the resistance values obtained may vary with the applied voltage, and errors may occur at low-test voltages. As a starting point, an ohmmeter (9 volts) can be used. For tests requiring measurement of electrical continuity between end fittings or through continuous internal or external bonded wires, the instrument used shall be an ohmmeter (9 volts).

4.2 Electrodes and Contacts: When the test procedure calls for contact with the hose cover, electrodes shall be formed around the outer circumference of the hose as bands 25 mm +2 mm, 0 mm (1" +1/16", 0") wide by applying silver lacquer/conductive liquid and metallic copper foil tape (i.e. 3M Scotch Brand) as shown in Figure 6-1. When a conductive silver lacquer (i.e. Colloidal Silver Liquid is available from Ted Pella, Inc. catalogue # 16031) is used, the surface resistance between any two points on a sample of the dried film shall not exceed 100 Ω. When a conductive liquid is

## GENERAL INFORMATION

### ELECTRICAL RESISTANCE TESTS

#### FOR HOSE AND HOSE ASSEMBLIES (continued)

used the electrode contact area shall be completely wetted and shall remain so until the end of the test. The conductive liquid shall consist of:

- Anhydrous polyethylene glycol of relative molecular mass 600: 800 parts by mass
- Water: 200 parts by mass
- Wetting agent: 1 part by mass
- Potassium Chloride: 10 parts by mass

When the test procedure calls for contact with the hose tube, it is preferable to use a copper plug of external diameter equal to or slightly greater than the hose ID or a steel hose stem, coated with the conducting liquid, and pushed 25 mm (1") into the hose. An alternative for 50 mm (2") and above hose would be to apply the conductive silver lacquer onto the hose ID, then insert the plug or hose stem. The electrical leads from the test instrument shall be clean and they should make adequate contact with the metallic copper foil and/or copper plugs/hose stems.

#### 5.0 Preparation and Cleaning for Test:

The surfaces of the hose shall be clean. If necessary, the hose surface may be cleaned by rubbing with Fuller's earth (magnesium aluminum silicate) and water, followed by a distilled water rinse, and allowing the hose to dry in a non-contaminating environment. Do not use organic materials that attack or swell the rubber, and do not buff or abrade the test surfaces.

The surface of the hose shall not be deformed either during the application of the contacts or during the test. When using test pieces, the supports shall be outside the test length. When using a long length of hose, the hose shall be uncoiled and laid out straight on polyethylene or other suitable insulating material. Care should be taken to ensure that the hose is insulated from any electrical leakage path along the length of the hose.

#### 6.0 Test Conditions:

For lab testing, the hose or hose assemblies shall be conditioned for at least 16 hours at  $+23^{\circ}\text{C} \pm 2^{\circ}\text{C}$  ( $73.4^{\circ}\text{F} \pm 3.6^{\circ}\text{F}$ ) with a relative humidity not to exceed 70%. However, it is permissible, by agreement between the supplier and the customer, to use the conditions prevailing in the factory, warehouse, or laboratory, provided that the relative humidity does not exceed 70%.

#### 7.0 Test Pieces:

Prepare three test pieces approximately 300 mm (12") long from samples taken at random from a production run or lot. Condition the test pieces per section 6.0.

Place the test piece on blocks of polyethylene, or other insulating material, to provide a resistance of greater than  $10^{11}\ \Omega$  between the test piece and the surface on which the blocks are supported. Ensure that the leads from the instrument do not touch each other, the hose, or any part except the terminal to which each is connected.

Avoid breathing on the test surfaces and thus creating condensation that may lead to inaccuracies.

#### 8.0 Procedure for hoses with conducting tube:

Apply the electrodes as specified to the inside surface of the hose at each end of the hose. The edge of the electrode plug shall be coincident with the end of the hose. When using a conductive liquid, care shall be taken to avoid creating a leakage path between the tube and the reinforcement or cover of the hose.

Apply the metal contacts to the electrodes.

Apply the test voltage (9V) and measure the resistance 5 seconds  $\pm$  1 second after the voltage is applied.

Note: In previous editions of the Hose Handbook, this method was referred to as the Plug Method.

#### 9.0 Procedure for hose with conducting cover:

Apply the electrodes as specified to the outer circumference of the hose at each hose end. See Figure 6-1.

Ensure that contact is maintained with the electrodes around the circumference and that the contact pieces are sufficiently long enough for the two free ends to be held securely by a tensioning clip (see Figure 6-1) such that the fit of the electrodes is as tight as possible.

Apply the metal contacts.

Apply the test voltage (9V) and measure the resistance 5 seconds  $\pm$  1 second after the voltage is applied.

## GENERAL INFORMATION

## ELECTRICAL RESISTANCE TESTS

## FOR HOSE AND HOSE ASSEMBLIES (continued)

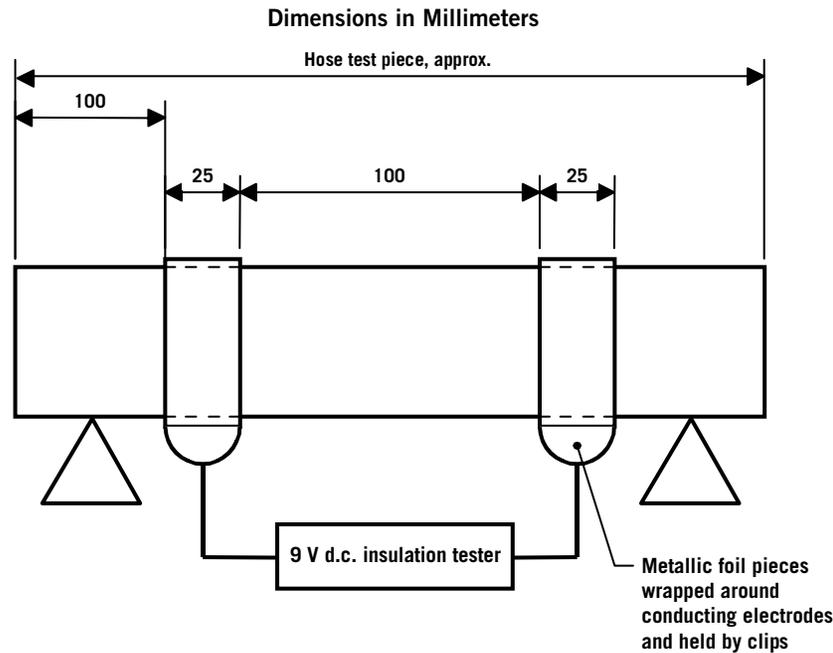


Figure 6-1 – Electrodes and contacts for testing hose

**10.0 Procedure for hose with conducting or non-conducting compounds throughout:**

Apply the electrodes as specified on the inside surface at one end of the hose (end A) and on the outside surface at the other end of the hose (end B).

Apply the metal contacts to the electrodes.

Apply the test voltage (9V for conductive compounds and 500V for non-conductive compounds) and measure the resistance 5 seconds  $\pm$  1 second after the voltage is applied.

Alternative method for non-conductive hose – Nail or “Pot Room” Method

Conduct test as follows:

1. Cut sample hose, 24 inches long
2. Assure that both inside and outside of hose are free of oil, dirt, etc.
3. Pierce sample ends with clean nails, as shown in Fig. 6-2.
4. Connect nails to 1000-volt DC power source and megohm meter or 1000 volt “megger” as shown in Fig. 6-2.
5. Record total resistance, in megohms.
6. Measure “test length” as shown in Fig. 6-2.
7. Divide total resistance by test length to get megohms per inch.

## GENERAL INFORMATION

### ELECTRICAL RESISTANCE TESTS

#### FOR HOSE AND HOSE ASSEMBLIES (continued)

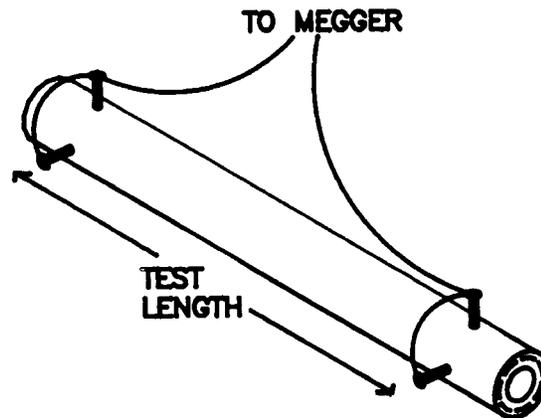


Figure 6-2 – Nail or “Pot Room” Test

#### 11.0 Procedure for hose assemblies fitted with metal end fittings:

When it is required that the resistance of a hose assembly be measured, the leads of the test instrument shall be attached directly to the metal hose shank (threaded end connection, fixed flange, stub end of a floating flange, etc.) of the metal end fittings.

Some hoses, especially thermoplastic hoses, have conductive layers within the hose construction. These hoses shall be tested as assemblies made with fittings and assembly techniques specified by the hose and fitting manufacturer.

Apply the metal contacts to the metal end fittings.

Apply the test voltage (9V) and measure the resistance 5 seconds  $\pm$  1 second after the voltage is applied.

#### 12.0 Procedure for measurement of electrical continuity:

In certain types of hose constructions, electrical continuity is provided between the end fittings by means of a continuous wire or wires bonded to each coupling. When the construction is such that there are internal and external wires, the electrical continuity of both wires shall be established.

It is essential that contact resistance between the end fittings and the ohmmeter be minimized.

Apply the metal contacts to the metal end fittings.

Apply the test voltage (9V) and measure the resistance 5 seconds  $\pm$  1 second after the voltage is applied.

## GENERAL INFORMATION

ELASTOMERS USED IN THE MANUFACTURE OF "RUBBER TYPE" PRODUCTS			
Veyance Tradename	Industry Designation	Outstanding Feature	Sample Hose
<b>Alphasyn<sup>®</sup></b>	Modified Cross-Link Polyethylene	Excellent high-temperature chemical resistance.	Tube compound in Viper™ chemical transfer hose.
<b>Carbryn™</b>	Carboxylated Nitrile	Excellent oil and abrasion resistance, good chemical resistance.	Cover compound on multipurpose hose: Gorilla <sup>®</sup> and Ortac <sup>®</sup> , pressure washer hose: Galvanator <sup>®</sup> and Gauntlet <sup>®</sup> .
<b>Nitrile</b>	Nitrile OR Buna-N	Oil, solvent and aromatics resistance.	Tube and cover compound in premium air and multipurpose hose, petroleum transfer hose: Gorilla <sup>®</sup> , Ortac <sup>®</sup> , Flexwing <sup>®</sup> Petroleum.
<b>Chemivic™</b>	Buna-N-Vinyl	Oil and abrasion resistant compound. Excellent ozone resistance.	Cover compound air/mp hose. Tube compound in food hose: White Flexwing <sup>®</sup> .
<b>Chemrin<sup>®</sup></b>	Chlorinated Polyethylene (CPE)	Excellent chemical resistance.	Tube compound chemical hose: Brown Flexwing <sup>®</sup> .
<b>Chlorobutyl</b>	Chlorobutyl	FDA compliant material in food hose. Excellent heat resistance.	Tube compound in food hose and Flexsteel <sup>®</sup> 250 CB Steam Hose.
<b>Flosyn<sup>®</sup></b>	Viton <sup>®</sup>	Excellent oil and chemical resistance.	Tube compound in Orange Flexwing <sup>®</sup> chemical hose.
<b>Hysunite™</b>	Hypalon	Chemical and oil resistant.	Tube compound in chemical transfer hose: Yellow Flexwing <sup>®</sup> .
<b>Nylon</b>	Nylon	Resistant to many paint sprays, lacquers, thinners, and mild chemicals.	Tube compound in NR Paint Spray.
<b>Omeegasyn™</b>	EPDM (abrasion-resistant)	Excellent abrasion resistance. Mild chemical resistance.	Cover compound: Viper™.
<b>Plioflex<sup>®</sup></b>	SBR	Good abrasion resistance.	Tube and cover compound in water suction and discharge hose: Plicord <sup>®</sup> Water S&D.
<b>Pyrosyn<sup>®</sup></b>	EPDM (Heat Resistant)	Heat resistant	Tube compound in Flexsteel <sup>®</sup> 250 Steam and Whitewater, Cover on Flexsteel <sup>®</sup> 250 Steam and Flexsteel <sup>®</sup> 250 CB Steam.

## GENERAL INFORMATION

## ELASTOMERS USED IN THE MANUFACTURE OF "RUBBER TYPE" PRODUCTS

Veyance Tradename	Industry Designation	Outstanding Feature	Sample Hose
Pliosyn™	Ultra High Molecular Weight Polyethylene	Excellent chemical resistance. Good flexibility properties.	Tube compound in Fabchem™ chemical hose.
Pliovic®	Polyvinyl Chloride	Lightweight, flexible and economical.	Pliovic® 250, Spiraflex® 1600.
Pureten™	Natural Rubber	Excellent abrasion resistance, resilient, tensile strength, retains flexibility below 0°F (Poor ozone).	Tube compound in material handling hose: Blucor®, Harvest™, and Tan Flexwing®.
Speclar®	Cross-Link Polyethylene	Excellent chemical resistance.	Tube compound in Blue Flexwing® chemical hose.
Spirathane™	Urethane	Excellent abrasion resistance and good chemical resistance.	Spirathane™ LD and inner liner of Spirathane™ HD.
Teflon®	Fluorinated Propylene OR Teflon®	Excellent chemical and petroleum resistance.	Tube compound in Hi-Per® Teflon® Hose.
TPE	Thermoplastic Elastomer	Heat and/or cold resistant, flexible and resistant to solvents.	Premier.
Tufsyn®	Polybutadiene Blend	Good tensile strength, high elongation, abrasion resistance, nonstatic properties.	Tube compound in Plicord® Blast, Plicord® Dredge Sleeve, Sand Suction
Versigard®	EPDM	Heat and/or cold resistant, weather and ozone resistant, mild chemical resistance.	Tube and cover compound in multipurpose hose: Horizon®, cover compound on chemical hose: Fabchem.®
Weatherex®	Butyl	Low permeability to air and gas; outstanding dampening and shock effect.	Tube compound in chemical transfer hose: Yellow Flexwing.®
Wingprene®	Neoprene (DuPont)	All purpose elastomer; good oil, heat and chemical resistance; very good ozone resistance.	Cover compound in petroleum transfer hose: Super Black Flexwing®, and Red Flextra.®

## GENERAL INFORMATION

### HOW TO SELECT THE RIGHT HOSE

In order to obtain the best service from any particular hose application, two important conditions must be fulfilled:

1. To select the right hose for the job.
2. To make sure, that after having obtained the right hose, it is fitted correctly and used in a proper manner.

When considering a particular hose application, the following basic factors should be considered:

1. Inside diameter.
2. Outside diameter.
3. Materials being conveyed (e.g., air, water, acids, oils, steam, etc.).
4. Precise composition of substance (important in the case of oils, solvents, spraying media, foods, beverages, petroleum products, gases, etc.).
5. Concentration (in the case of chemicals).
6. Maximum temperature of substance.
7. Maximum pressure (including any possible surge or back pressure).
8. Degree of vacuum (in the case of suction hose).
9. External conditions. The scope of this factor is possibly the widest of all and covers such things as:
  - Abrasion.
  - Climactic conditions.
  - Direct heat.
  - Radiated heat.
  - Contamination from oil, grease, solvents, acids, etc.
  - End loads.
  - Flexings — degree and cycle.
  - Crushing conditions.
  - Kinking conditions.
10. Details of couplings (particularly in specialized applications).

#### Steam Hose

Air, steam and water hoses are the three types of hose most used in industrial plants. The following instructions apply in general to these types of hose. Since steam service is usually the most severe in the average plant, particular attention is directed to steam hose. In selecting a hose for a steam installation it is important that the type recommended is sufficient to handle the maximum working pressure. Your Goodyear® Engineered Products representative will assist in making recommendations.

At elevated temperatures, steam severely affects rubber hose of all types, so it is important that temperature be considered in the choice of a steam hose. High steam temperature and pressure can cause deterioration in certain reinforcing members used in hose and a relatively small increase in temperature can greatly affect hose performance.

The steam pressure is important in that it determines the minimum temperature condition under which the hose will be used. If the steam is saturated, its temperature is directly related to its pressure. The temperature may be determined from the Saturated Steam Table on page 317. However, if steam is superheated, the degree of superheating must be known to determine the actual temperature which the hose must withstand.

The flex factor takes into consideration the magnitude of the flexing and its time cycle. A flexing that is rapid and continuous, even though of small magnitude, would be considered as severe as flexing that is large in magnitude but with an extremely long time cycle. The degree of flexing is an important factor in the ultimate life of the hose.

Refer to R.M.A. Technical Information Bulletin #1P-11-1.

#### Air Hose

Many fine types of air hose, equipped with tough, abrasion-resisting covers and with are offered tube stocks which will successfully resist oil mist, if present. Where tools are lubricated through hose, only the very best quality air hose with highest grade oil-resisting tube should be used. The recommended working pressure should be sufficient to withstand the maximum pressures encountered.

#### Water Hose

In the selection of the correct water hose for any service, the same principles apply as for air and steam hose.

#### Suction Hose

Most Goodyear® Engineered Products vacuum or suction hose are designed to withstand full vacuum. However, in some of the lighter styles, less than full vacuum is recommended.

Use the information in this catalogue to help determine the best hose for your application. To assist your efforts to collect the data necessary to make a proper hose recommendation, use the form on the next page.

GENERAL INFORMATION

INDUSTRIAL HOSE INQUIRY/RECOMMENDATION

<b>SIZE:</b>	
I.D.	
O.D.	
Hose Length (OAL or uncoupled length)	
Tolerances	
<b>TEMPERATURE:</b>	
of Material Being Conveyed (High, Low, Ambient)	
of Outside Exposure (High, Low, Ambient)	
Intermittent?	
Constant?	
Sub-zero Exposure?	
<b>APPLICATION(S):</b>	
Indoor and/or Outdoor Use	
Intermittent or Continuous Use	
Flexibility Required (Min. Bend Radius)	
Movement (Static, Vibrations, Flexing)	
External Conditions: Abrasion	
Oil	
Solvents	
Acid	
Ozone	
Electrical/Static Conductive	
Oil Resistance: Tube	
Cover	
Flame Resistance	
Non-contaminating Materials	
Hose Currently in Use	
Current Hose Service Life/Failure Description	
Service Life Desired	
<b>MATERIAL(S) BEING CONVEYED:</b>	
Solids (Size, Description)	
Gaseous (Volatility, Inert)	
Liquids (Flammability, Causticity, Acid/Alkaline, Solution/Concentration)	
Chemical Names (Generic)	
<b>PRESSURE(S):</b>	
Working Pressure (Including Surges)	
Burst Pressure	
Suction or Vacuum Requirements	
Velocity	
Impulse	
<b>ENDS &amp; FITTINGS:</b>	
Factory Applied Fittings:	Type of threads
	Male/Female
	Reusable/Nonreusable
	Material for Fittings
Built-in Fittings / Ends:	Beaded
	Flanged
	Rubber-Lined
	Other
	Cut to Length
	Crimp Specs/Crimper (Hydraulics)
<b>DELIVERY:</b>	
	Lead time
	Quantity
	Stock/Nonstock
	Special Print
	Special Packaging
<b>OTHER INFORMATION:</b>	
Customer:	Date:
Customer #:	
Ship To:	
Bill To:	
Telephone #:	Fax#:

Bolded block areas MUST be filled out on all inquiries.

## GENERAL INFORMATION

### TEMPERATURE CONVERSION

Locate temperature in middle column. If in °C, read °F equivalent in right-hand column; if in °F, read °C in left-hand column.

-459° to 0°			1° to 60°			61° to 290°			300° to 890°			900° to 3000°		
C	C	F	C	C	F	C	C	F	C	C	F	C	C	F
-273	-459.4		-17.2	1	33.8	16.1	61	141.8	149	300	572	482	900	1652
-268	-450		-16.7	2	35.6	16.7	62	143.6	154	310	590	488	910	1670
-262	-440		-16.1	3	37.4	17.2	63	145.4	160	320	608	493	920	1688
-257	-430		-15.6	4	39.2	17.8	64	147.2	166	330	626	499	930	1706
-251	-420		-15.0	5	41.0	18.3	65	149.0	171	340	644	504	940	1724
-246	-410		-14.4	6	42.8	18.9	66	150.8	177	350	662	510	950	1742
-240	-400		-13.9	7	44.6	19.4	67	152.6	182	360	680	516	960	1760
-234	-390		-13.3	8	46.4	20.0	68	154.4	188	370	698	521	970	1778
-229	-380		-12.8	9	48.2	20.6	69	156.2	193	380	716	527	980	1796
-223	-370		-12.2	10	50.0	21.1	70	158.0	199	390	734	532	990	1814
-218	-360		-11.7	11	51.8	21.7	71	159.8	204	400	752	538	1000	1832
-212	-350		-11.1	12	53.6	22.2	72	161.6	210	410	770	549	1020	1868
-207	-340		-10.6	13	55.4	22.8	73	163.4	216	420	788	560	1040	1904
-201	-330		-10.0	14	57.2	23.3	74	165.2	221	430	806	571	1060	1940
-196	-320		-9.4	15	59.0	23.9	75	167.0	227	440	824	582	1080	1976
-190	-310		-8.9	16	60.8	24.4	76	168.8	232	450	842	593	1100	2012
-184	-300		-8.3	17	62.6	25.0	77	170.6	238	460	860	604	1120	2048
-179	-290		-7.8	18	64.4	25.6	78	172.4	243	470	878	616	1140	2084
-173	-280		-7.2	19	66.2	26.1	79	174.2	249	480	896	627	1160	2120
-169	-273	-459.4	-6.7	20	68.0	26.7	80	176.0	254	490	914	638	1180	2156
-168	-270	-454	-6.1	21	69.8	27.2	81	177.8	260	500	932	649	1200	2192
-162	-260	-436	-5.6	22	71.6	27.8	82	179.6	266	510	950	660	1220	2228
-157	-250	-418	-5.0	23	73.4	28.3	83	181.4	271	520	968	671	1240	2264
-151	-240	-400	-4.4	24	75.2	28.9	84	183.2	277	530	986	682	1260	2300
-146	-230	-382	-3.9	25	77.0	29.4	85	185.0	282	540	1004	693	1280	2336
-140	-220	-364	-3.3	26	78.8	30.0	86	186.8	288	550	1022	704	1300	2372
-134	-210	-346	-2.8	27	80.6	30.6	87	188.6	293	560	1040	732	1350	2462
-129	-200	-328	-2.2	28	82.4	31.1	88	190.4	299	570	1058	760	1400	2552
-123	-190	-310	-1.7	29	84.2	31.7	89	192.2	304	580	1076	788	1450	2642
-118	-180	-292	-1.1	30	86.0	32.2	90	194.0	310	590	1094	816	1500	2732
-112	-170	-274	-0.6	31	87.8	32.8	91	195.8	316	600	1112	843	1550	2822
-107	-160	-256	0.0	32	89.6	33.3	92	197.6	321	610	1130	871	1600	2912
-101	-150	-238	0.6	33	91.4	33.9	93	199.4	327	620	1148	899	1650	3002
-96	-140	-220	1.1	34	93.2	34.4	94	201.2	332	630	1166	927	1700	3092
-90	-130	-202	1.7	35	95.0	35.0	95	203.0	338	640	1184	954	1750	3182
-84	-120	-184	2.2	36	96.8	35.6	96	204.8	343	650	1202	983	1800	3272
-79	-110	-166	2.8	37	98.6	36.1	97	206.6	349	660	1220	1010	1850	3362
-73	-100	-148	3.3	38	100.4	36.7	98	208.4	354	670	1238	1038	1900	3452
-68	-90	-130	3.9	39	102.2	37.2	99	210.2	360	680	1256	1066	1950	3542
-62	-80	-112	4.4	40	104.0	37.8	100	212.0	366	690	1274	1093	2000	3632
-57	-70	-94	5.0	41	105.8	43	110	230	371	700	1292	1121	2050	3722
-51	-60	-76	5.6	42	107.6	49	120	248	377	710	1310	1149	2100	3812
-46	-50	-58	6.1	43	109.4	54	130	266	382	720	1328	1177	2150	3902
-40	-40	-40	6.7	44	111.2	60	140	284	388	730	1346	1204	2200	3992
-34	-30	-22	7.2	45	113.0	66	150	302	393	740	1364	1232	2250	4082
-29	-20	-4	7.8	46	114.8	71	160	320	399	750	1382	1260	2300	4172
-23	-10	14	8.3	47	116.6	77	170	338	404	760	1400	1288	2350	4262
-17.8	0	32	8.9	48	118.4	82	180	356	410	770	1418	1316	2400	4352
			9.4	49	120.2	88	190	374	416	780	1436	1343	2450	4442
			10.0	50	122.0	93	200	392	421	790	1454	1371	2500	4532
			10.6	51	123.8	99	210	410	427	800	1472	1399	2550	4622
			11.1	52	125.6	100	212	413.6	432	810	1490	1427	2600	4712
			11.7	53	127.4	104	220	428	438	820	1508	1454	2650	4802
			12.2	54	129.2	110	230	446	443	830	1526	1482	2700	4892
			12.8	55	131.0	116	240	464	449	840	1544	1510	2750	4982
			13.3	56	132.8	121	250	482	454	850	1562	1538	2800	5072
			13.9	57	134.6	127	260	500	460	860	1580	1566	2850	5162
			14.4	58	136.4	132	270	518	466	870	1598	1593	2900	5252
			15.0	59	138.2	138	280	536	471	880	1616	1621	2950	5342
			15.6	60	140.0	143	290	554	477	890	1634	1649	3000	5432

GENERAL INFORMATION

USEFUL CONVERSION CHARTS

Decimal and Millimeter Equivalents of Fractions

Inches			Inches		
Fractions	Decimals	Millimeters	Fractions	Decimals	Millimeters
1/64	.015625	.397	33/64	.515625	13.097
1/32	.03125	.794	17/32	.53125	13.494
3/64	.046875	1.191	35/64	.546875	13.891
1/16	.0625	1.588	9/16	.5625	14.288
5/64	.078125	1.984	37/64	.578125	14.684
3/32	.09375	2.381	19/32	.59375	15.081
7/64	.109375	2.778	39/64	.609375	15.478
1/8	.125	3.175	5/8	.625	15.875
9/64	.140625	3.572	41/64	.640625	16.272
5/32	.15625	3.969	21/32	.65625	16.669
11/64	.171875	4.366	43/64	.671875	17.066
3/16	.1875	4.763	11/16	.6875	17.463
13/64	.203125	5.159	45/64	.703125	17.859
7/32	.21875	5.556	23/32	.71875	18.256
15/64	.234375	5.953	47/64	.734375	18.653
1/4	.250	6.350	3/4	.750	19.050
17/64	.265625	6.747	49/64	.765625	19.447
9/32	.28125	7.144	25/32	.78125	19.844
19/64	.296875	7.541	51/64	.796875	20.241
5/16	.3125	7.938	13/16	.8125	20.638
21/64	.328125	8.334	53/64	.828125	21.034
11/32	.34375	8.731	27/32	.84375	21.431
23/64	.359375	9.128	55/64	.859375	21.828
3/8	.375	9.525	7/8	.875	22.225
25/64	.390625	9.922	57/64	.890625	22.622
13/32	.40625	10.319	29/32	.90625	23.019
27/64	.421875	10.716	59/64	.921875	23.416
7/16	.4375	11.113	15/16	.9375	23.813
29/64	.453125	11.509	61/64	.953125	24.209
15/32	.46875	11.906	31/32	.96875	24.606
31/64	.484375	12.303	63/64	.984375	25.003
1/2	.500	12.700	1	1.000	25.400

Pressure Conversion

(feet of water to inches of mercury)

Feet of Water	Inches of Mercury
1	0.9
2	1.8
4	3.5
6	5.3
8	7.1
10	8.8
12	10.6
14	12.4
16	14.1
18	15.9
20	17.7
22	19.4
24	21.2
26	23.0
28	24.8
30	26.5
32	28.3
34	30.0

Measures of Pressures

1 lb. per square inch = 144 lbs. per square foot = 0.068 atmosphere = 2.042 inches of mercury @ 62°F = 2.31 feet of water at 62°F.

1 atmosphere = 30 inches of mercury at 62°F = 14.7 lbs. per square inch = 2116.3 lbs. per square foot = 33.95 feet of water at 62°F.

1 foot of water at 62°F = 62.355 lbs. per square foot = 0.433 lb. per square inch.

1 inch of mercury at 62°F = 1.132 feet of water = 13.58 inches of water = 0.491 lb. per square inch.

Column of water 12 inches high, 1 inch diameter = .341 lb.

Pressure Conversion (feet of water to pounds per square inch)

Based on formula (psi) = Pressure Head [Ft. of Water] x 0.433

Pressure Head (Ft. of Water)	Pressure (psi)	Pressure Head (Ft. of Water)	Pressure (psi)	Pressure Head (Ft. of Water)	Pressure (psi)
0	0	200	87	410	177
5	2.2	210	91	420	182
10	4.3	220	95	430	186
20	8.7	230	100	440	190
30	13	240	104	450	195
40	17	250	108	460	199
50	22	260	113	470	203
60	26	270	117	480	208
70	30	280	121	490	212
80	35	290	126	500	216
90	39	300	130	550	238
100	43	310	134	600	260
110	48	320	139	650	281
120	52	330	143	700	303
130	56	340	147	750	325
140	61	350	151	800	346
150	65	360	156	850	368
160	69	370	160	900	390
170	74	380	164	950	411
180	78	390	169	1000	433
190	82	400	173		

## GENERAL INFORMATION

## LENGTH CONVERSION CONSTANTS

Metric to U.S.	U.S. to Metric
Millimeters x .039370 = inches	Inches x 25.4001 = millimeters
Meters x 39.370 = inches	Inches x .0254 = meters
Meters x 3.2808 = feet	Feet x .30480 = meters
Meters x 1.09361 = yards	Yards x .91440 = meters
Kilometers x 3,280.8 = feet	Feet x .0003048 = kilometers
Kilometers x .62137 = Statute Miles	Statute Miles x 1.60935 = kilometers
Kilometers x .53959 = Nautical Miles	Nautical Miles x 1.85325 = kilometers

## WEIGHT CONVERSION CONSTANTS

Metric to U.S.	U.S. to Metric
Grams x 981 = dynes	Dynes x .0010193 = grams
Grams x 15.432 = grains	Grains x .0648 = grams
Grams x .03527 = ounces (Avd.)	Ounces (Avd.) x 28.35 = grams
Grams x .033818 = fluid ounces (water)	Fluid Ounces (Water) x 29.57 = grams
Kilograms x 35.27 = ounces (Avd.)	Ounces (Avd.) x .02835 = kilograms
Kilograms x 2.20462 = pounds (Avd.)	Pounds (Avd.) x .45359 = kilograms
Metric tons (1000 Kg.) x 1.10231 = Net ton (2000 lbs.)	Net ton (2000 lbs.) x .90719 = Metric tons (1000 Kg.)
Metric tons (1000 Kg.) x .98421 = Gross ton (2240 lbs.)	Gross ton (2240 lbs.) x 1.101605 = Metric tons (1000 Kg.)

## AREA CONVERSION CONSTANTS

Metric to U.S.	U.S. to Metric
Square millimeters x .00155 = square inches	Square inches x 645.163 = square millimeters
Square centimeters x .155 = square inches	Square inches x 6.45163 = square centimeters
Square meters x 10.76387 = square feet	Square feet x .0929 = square meters
Square meters x 1.19599 = square yards	Square yards x .83613 = square meters
Hectares x 2.47104 = acres	Acres x .40469 = hectares
Square kilometers x 247.104 = acres	Acres x .0040469 = square kilometers
Square kilometers x .3861 = square miles	Square miles x 2.5899 = square kilometers

## GENERAL INFORMATION

## PROPERTIES OF SATURATED STEAM

The steam pressure is important because it determines the minimum temperature condition under which the hose will be used. The operating temperature is a very important factor in selecting a steam hose as a relatively small increase in temperature can greatly reduce the hose life.

## Pressure-Temperature Equivalents of Saturated Steam

Lbs. per sq. in. pressure	Temperature		Lbs. per sq. in. pressure	Temperature	
	°F	°C		°F	°C
0	212.0	100.0	110	344.1	173.4
5	227.1	108.4	115	347.2	175.1
10	239.4	115.2	120	350.1	175.7
15	249.8	121.0	125	352.9	178.3
20	258.8	126.0	130	355.6	179.8
22	261.2	127.8	135	358.3	181.3
24	265.3	129.6	140	360.9	182.7
26	268.3	131.3	145	363.4	184.1
28	271.2	132.9	150	365.9	185.5
30	274.1	134.5	155	368.2	186.8
32	276.8	136.0	160	370.6	188.1
34	279.3	137.4	165	373.9	189.4
36	281.8	138.8	170	375.3	190.7
38	284.4	140.2	175	377.4	191.9
40	286.7	141.5	180	379.6	193.1
42	289.0	142.8	185	381.7	194.3
44	291.2	144.0	190	383.7	195.4
46	293.5	145.3	195	385.9	196.6
48	295.5	146.4	200	387.9	197.7
50	294.7	147.6	205	398.8	198.8
52	299.9	148.7	210	391.6	199.8
54	301.6	149.8	215	392.9	200.5
56	303.6	150.9	220	395.4	201.7
58	308.4	151.9	225	397.2	202.9
60	307.4	153.0	230	399.0	203.9
62	309.2	154.0	235	400.7	204.8
64	310.8	154.9	240	402.5	205.8
66	312.6	155.9	245	404.2	206.8
68	314.2	156.8	250	406.1	207.8
70	316.0	157.0	255	407.7	208.7
72	317.7	158.7	260	409.4	209.7
74	319.3	159.6	265	411.0	210.6
76	320.9	160.5	270	412.6	211.4
78	322.3	161.3	275	414.2	202.3
80	323.8	162.1	280	415.7	213.2
85	327.6	164.2	300	421.0	216.1
90	331.2	166.2	350	436.5	224.7
95	334.6	168.1			
100	337.8	169.9			
105	341.1	171.7			

## GENERAL INFORMATION

### FLOW DATA

This table may be used to determine the pressure loss in hose connected to rock drills and pneumatic tools. It is correct for hose with smooth inside lining. Hose with rough inside lining may have a friction loss of as much as 50% greater than the figures given in the table.

		AIR FLOW PRESSURE LOSS														
		PULSATING FLOW														
Size of Hose	Gauge pressure at line	Cubic feet free air per minute passing through 50 foot lengths of hose														
		20	30	40	50	60	70	80	90	100	110	120	130	140	150	
		Loss of pressure in pounds per square inch – 50 foot hose length														
½ in. with couplings at each end	50	1.8	5.0	10.1	18.1											
	60	1.3	4.0	8.4	14.8	23.4										
	70	1.0	3.4	7.0	12.4	20.0	28.4									
	80	.9	2.8	6.0	10.8	17.4	25.2	34.6								
	90	.8	2.4	5.4	9.5	14.8	22.0	30.5	41.0							
	100	.7	2.3	4.8	8.4	13.3	19.3	27.2	36.6							
110	.6	2.0	4.3	7.6	12.0	17.6	24.6	33.3	44.5							
¾ in. with couplings at each end	50	.4	.8	1.5	2.4	3.5	4.4	6.5	8.5	11.4	14.2					
	60	.3	.6	1.2	1.9	2.8	3.8	5.2	6.8	8.6	11.2					
	70	.2	.5	.9	1.5	2.3	3.2	4.2	5.5	7.0	8.8	11.0				
	80	.2	.5	.8	1.3	1.9	2.8	3.6	4.7	5.8	7.2	8.8	10.6			
	90	.2	.4	.7	1.1	1.6	2.3	3.1	4.0	5.0	6.2	7.5	9.0			
	100	.2	.4	.6	1.0	1.4	2.0	2.7	3.5	4.4	5.4	6.6	7.9	9.4	11.1	
110	.1	.3	.5	.9	1.3	1.8	2.4	3.1	3.9	4.9	5.9	7.1	8.4	9.9		
1 in. with couplings at each end	50	.1	.2	.3	.5	.8	1.1	1.5	2.0	2.6	3.5	4.8	7.0			
	60	.1	.2	.3	.4	.6	.8	1.2	1.5	2.0	2.6	3.3	4.2	5.5	7.2	
	70		.1	.2	.4	.5	.7	1.0	1.3	1.6	2.0	2.5	3.1	3.8	4.7	
	80		.1	.2	.3	.5	.7	.8	1.1	1.4	1.7	2.0	2.4	2.7	3.5	
	90		.1	.2	.3	.4	.6	.7	.9	1.2	1.4	1.7	2.0	2.4	2.8	
	100		.1	.2	.2	.4	.5	.6	.8	1.0	1.2	1.5	1.8	2.1	2.4	
110		.1	.2	.2	.3	.4	.6	.7	.9	1.1	1.3	1.5	1.8	2.1		
1¼ in. with couplings at each end	50			.1	.2	.2	.3	.4	.5	.7	1.1					
	60				.1	.2	.3	.3	.5	.6	.8	1.0	1.2	1.5		
	70				.1	.2	.2	.3	.4	.4	.5	.7	.8	1.0	1.3	
	80					.1	.2	.2	.3	.4	.5	.6	.7	.8	1.0	
	90					.1	.2	.2	.3	.3	.4	.5	.6	.7	.8	
	100						.1	.2	.2	.3	.4	.4	.5	.6	.7	
110							.1	.2	.2	.3	.3	.4	.5	.6		
1½ in. with couplings at each end	50						.1	.2	.2	.2	.3	.3	.4	.5	.6	
	60							.1	.2	.2	.2	.3	.3	.4	.5	
	70								.1	.2	.2	.2	.3	.3	.4	
	80									.1	.2	.2	.2	.3	.4	
	90										.1	.2	.2	.2	.3	
	100											.1	.2	.2	.2	
110												.1	.2	.2		

For longer or shorter lengths of hose, the friction loss is proportional to the length, e.g., for 25 feet, half of the above; for 150 feet, three times the above, etc.

## GENERAL INFORMATION

FLOW DATA (continued)										
WATER FLOW PRESSURE LOSS (PSI per 100 feet of hose)										
Flow of water in U.S. gal. per min.	Flow of water in cu. feet per sec.	Actual Internal Diameter, Inches								
		1/2	5/8	3/4	1	1 1/4	1 1/2	2	2 1/2	3
0.5	.001	0.4								
1.5	.003	3.02	1.01	0.42						
2.5	.005	7.75	2.58	1.08						
5	.011	27.8	9.27	3.86	0.95	0.32	0.13			
10	.022	99.5	33.2	13.8	3.38	1.14	0.47	0.12		
15	.033		71.0	29.6	7.25	2.45	1.01	0.25	0.08	
20	.044		121.0	50.3	12.4	4.15	1.71	0.42	0.14	
25	.055			76.5	18.7	6.34	2.60	0.64	0.22	
30	.066			108.0	26.5	8.96	3.68	0.90	0.30	0.13
35	.077			142.0	34.8	11.8	4.83	1.18	0.40	0.17
40	.088				44.7	15.1	6.20	1.52	0.51	0.21
45	.099				55.0	18.6	7.65	1.87	0.63	0.26
50	.110				67.5	22.8	9.35	2.28	0.78	0.32
60	.132				94.3	31.8	13.1	3.19	1.08	0.45
70	.154				126.0	42.5	17.5	4.25	1.44	0.60
80	.176					54.6	22.5	5.48	1.86	0.77
90	.198					67.5	27.8	6.80	2.30	0.95
100	.223					81.5	33.5	8.19	2.78	1.15
125	.278					124.0	50.6	12.4	4.20	1.73
150	.334						72.1	17.6	6.97	2.46
175	.390						94.5	23.1	7.83	3.23
200	.446						122.0	29.6	10.1	4.15
225	.501							36.8	12.5	5.15
250	.557							44.6	15.2	6.28
275	.613							53.3	18.1	7.45
300	.688							62.5	21.2	8.75
325	.724							72.5	24.6	10.2
350	.780							83.2	28.2	11.7
375	.836							94.5	32.1	13.3
400	.891							107.0	36.2	14.9
450	1.00								44.9	18.6
500	1.11								54.5	22.5
600	1.34								76.5	31.6
700	1.56								102.0	42.1
800	1.78								131.0	53.9
900	2.00									66.8
1000	2.23									81.4
1100	2.45									97.0
1200	2.67									114.0
1300	2.90									132.0
1400	3.12									
1500	3.34									
1600	3.56									
1800	4.01									
2000	4.45									

Note: The pressure loss experienced by a liquid flowing through a hose depends on the rate of flow, the viscosity of the liquid, the hose ID, the smoothness of the tube, and the hose length. This chart shows the relationship between rate of flow, ID, and pressure loss for water at 68°F with a viscosity of one centipoise. The pressure is directly proportional to the length of the hose, therefore, the data shown can be easily extended by use of proportions, e.g., the pressure drop for 50 feet of hose length is half that for 100 feet.

## GENERAL INFORMATION

FLOW DATA (continued)							
WATER FLOW PRESSURE LOSS (PSI per 100 feet of hose)							
	Flow of water in cu. feet per sec.	Actual Internal Diameter, Inches					
		4	6	8	10	12	14
100	.223	.26					
125	.278	.40					
150	.334	.54					
175	.390	.70	.10				
200	.446	.90	.13				
225	.501	1.08	.16				
250	.557	1.34	.19				
275	.613	1.60	.24				
300	.668	1.84	.28				
325	.724	2.04	.33				
350	.780	2.30	.37				
375	.836	2.80	.44				
400	.891	3.10	.49				
425	.947	3.40	.54				
450	1.00	3.80	.60				
475	1.06	4.25	.70				
500	1.11	4.60	.78	.16			
550	1.22	5.60	.93	.18			
600	1.34	6.60	1.10	.23			
650	1.45	7.60	1.30	.27			
700	1.56	8.60	1.50	.30			
750	1.67	9.60	1.70	.34			
800	1.78	10.80	1.90	.39			
850	1.89	12.00	2.20	.44			
900	2.00		2.40	.49			
950	2.12		2.60	.54			
1000	2.23		2.80	.59	.19		
1100	2.45		3.20	.66	.23		
1200	2.67		3.70	.74	.27		
1300	2.90		4.50	.88	.31		
1400	3.12		5.30	1.10	.35	.15	
1500	3.34		6.20	1.25	.40	.17	
1600	3.56		7.00	1.40	.45	.19	
1800	4.01		8.80	1.80	.54	.24	
2000	4.45		16.50	2.20	.64	.29	.14
2500	5.57			3.40	.98	.42	.21
3000	6.68			4.50	1.40	.58	.29
3500	7.80			6.20	1.90	.79	.39
4000	8.91			8.20	2.40	1.00	.50
4500	10.03			10.20	3.00	1.25	.62
5000	11.14				3.80	1.50	.74
6000	13.37				5.20	2.10	1.10
7000	15.60				7.00	2.80	1.40
8000	17.82				9.20	3.70	1.80
9000	20.05				11.50	4.60	2.30
10000	22.28					5.70	2.80
12000	26.74					6.70	3.70
14000	31.19					10.00	5.00
16000	35.65					13.50	6.80
18000	40.10						8.80
20000	44.56						11.00

# GENERAL INFORMATION

## OPEN-END DISCHARGE

The term “open-end discharge” refers to a hose which empties a fluid into the atmosphere. Even though one end is open, the pressure is not low throughout the hose.

The inlet end pressure is equal to that in the line to which the hose is connected unless the flow rate is so low that the hose is not completely filled. The pressure along the hose length drops from a maximum at the inlet to zero at the outlet and the pressure at any given point along the length is nearly proportional to the distance from the hose inlet.

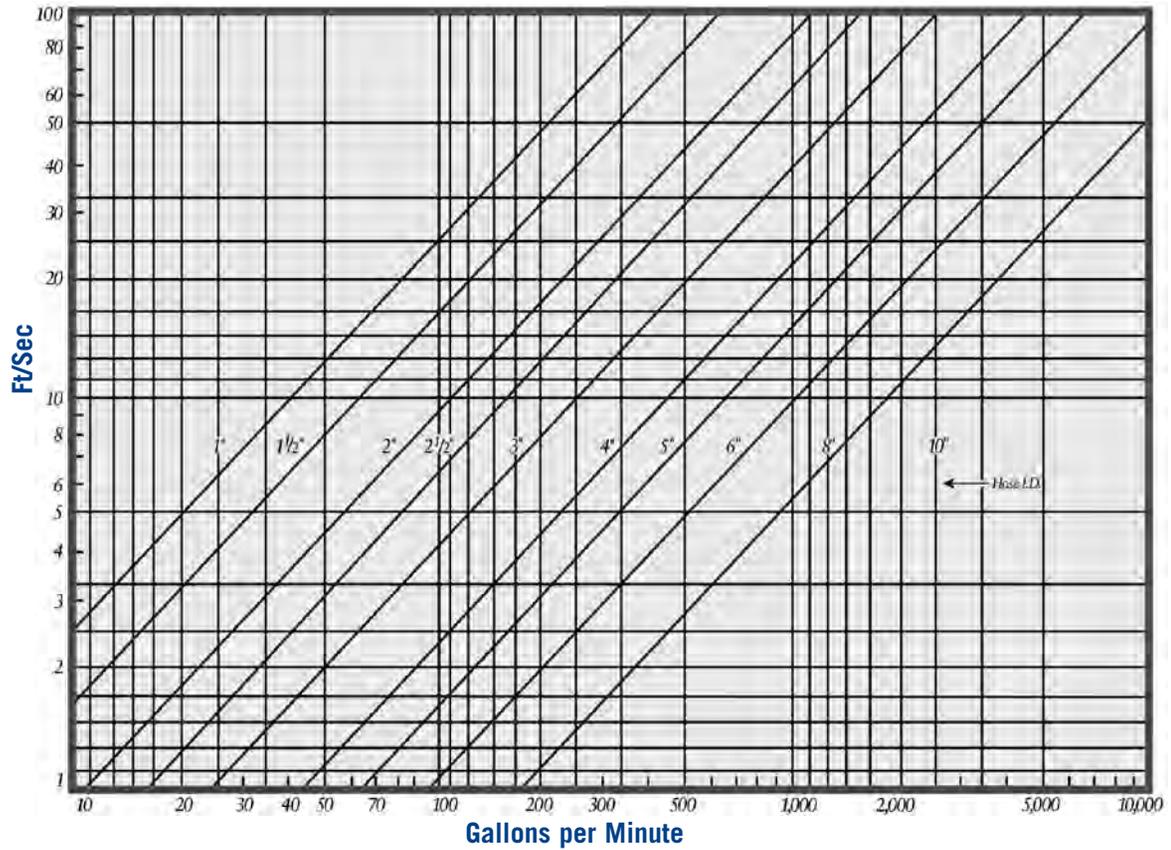
The following table shows the flow in gallons per minute for various sizes of hoses in open-end discharge service.

OPEN-END FLOW (GPM)																			
Hose Size	Pressure at Inlet, psi	Hose Length, feet								Pressure at Inlet, psi	Hose Length, feet								
		25	50	75	100	125	150	200	300		25	50	75	100	125	150	200	300	
1/2" hose	30	10.4	6.2	5.6	4.8	4.3	3.8	3.3	2.6	1" hose	30	68.0	46.2	37.5	32.0	28.5	25.8	22.0	17.8
	40	12.1	8.5	6.2	5.6	5.0	4.5	3.8	3.2		40	79.0	54.4	44.0	37.5	33.0	30.0	25.8	20.8
	50	13.8	9.4	7.5	6.4	5.6	5.1	4.0	3.5		50	89.0	62.0	49.0	42.0	37.5	34.0	29.0	23.3
	60	15.2	10.4	8.5	7.1	6.2	5.6	4.9	3.8		60	100.0	68.0	54.4	46.2	41.8	37.5	32.0	25.8
	70	16.6	11.2	9.0	7.8	6.8	6.2	5.3	4.2		70	—	74.0	59.0	51.0	45.0	40.8	37.3	28.0
	80	18.0	12.1	9.8	8.5	7.3	6.6	5.6	4.5		80	—	79.0	63.0	54.4	48.0	43.0	37.5	30.0
	90	19.0	13.0	10.4	8.8	7.7	7.1	6.0	4.8		90	—	84.0	68.0	58.0	51.8	46.2	40.0	32.0
	100	20.1	13.8	11.0	9.4	8.5	7.5	6.4	4.9		100	—	89.0	71.0	62.0	54.4	49.0	42.0	34.0
	125	22.8	15.5	12.5	10.5	9.4	8.5	7.2	5.8		125	—	101.0	80.0	68.0	62.0	55.8	47.8	38.0
5/8" hose	30	18.1	12.5	10.3	8.7	7.7	7.0	6.0	4.9	1 1/4" hose	50	—	110.0	85.0	72.0	56.0	58.0	50.0	42.0
	40	21.4	14.8	12.5	10.3	9.0	8.3	7.0	5.7		75	—	130.0	110.0	90.0	80.0	73.0	64.0	52.0
	50	23.9	16.5	13.2	11.4	10.3	9.2	7.9	6.3		100	—	150.0	125.0	110.0	92.0	85.0	73.0	58.0
	60	26.5	18.1	14.8	12.5	11.2	10.3	8.7	7.0		150	—	—	150.0	130.0	120.0	110.0	90.0	67.0
	70	27.5	20.0	16.0	13.7	12.0	11.0	10.0	7.6		1 3/8" hose	50	—	140.0	115.0	96.0	85.0	75.0	65.0
	80	30.6	21.4	16.8	14.8	13.0	11.8	10.3	8.3	75		—	170.0	140.0	125.0	110.0	96.0	84.0	67.0
	90	32.5	22.5	18.1	15.5	14.0	12.5	10.5	8.7	100		—	205.0	160.0	140.0	125.0	110.0	96.0	75.0
	100	34.5	23.9	19.0	16.6	14.8	13.2	11.4	9.2	150		—	—	205.0	170.0	155.0	140.0	125.0	97.0
	3/4" hose	125	39.0	27.0	21.5	18.5	16.6	15.0	12.9	10.5	1 1/2" hose	50	—	180.0	150.0	130.0	120.0	105.0	90.0
30		31.0	21.3	17.2	14.8	13.0	11.8	10.2	8.2	75		—	230.0	180.0	160.0	145.0	130.0	120.0	90.0
40		36.0	25.0	20.0	17.2	15.2	13.8	11.8	9.4	100		—	260.0	220.0	180.0	170.0	150.0	130.0	105.0
50		41.0	28.0	22.5	19.2	17.2	15.5	13.2	10.7	150		—	—	260.0	230.0	205.0	180.0	160.0	130.0
60		45.5	31.0	25.0	21.3	19.0	17.2	14.8	11.8	2" hose	50	—	380.0	310.0	270.0	240.0	210.0	180.0	150.0
70		49.5	34.0	27.2	23.5	21.0	18.8	17.1	12.8		75	—	480.0	380.0	330.0	290.0	270.0	230.0	180.0
80		53.0	36.0	29.1	25.0	22.0	20.0	17.2	13.8		100	—	550.0	450.0	380.0	350.0	310.0	260.0	215.0
90		56.2	39.0	31.0	27.0	23.8	21.3	18.2	14.8		125	—	—	550.0	480.0	425.0	380.0	330.0	265.0
100		60.0	41.0	33.0	28.0	25.0	22.6	19.2	15.5										
125	68.0	46.0	37.5	32.0	23.0	25.8	21.8	17.5											

## GENERAL INFORMATION

### FLUID VELOCITY VS. FLOW RATE

The graph below illustrates the fluid velocity for flow rates up to 10,000 GPM for hose from 1" through 10" ID



## GENERAL INFORMATION

### RMA OIL AND GASOLINE RESISTANCE

Rubber hose is used to convey petroleum products both in the crude and refined stages. The aromatic content of refined gasoline is often adjusted to control the octane rating. The presence of aromatic hydrocarbons in this fuel generally has a greater effect on rubber components than do aliphatic hydrocarbons. Aromatic materials in contact with rubber tend to soften it and reduce its physical properties. For long-lasting service, the buyer of gasoline hose should inform the hose manufacturer of the aromatic content of the fuel to be handled so that the proper tube compound can be recommended for the specific application.

The effects of oil on rubber depend on a number of factors that include the type of rubber compound the composition of the oil, the temperature and time of exposure. Rubber compounds can be classified as to their degree of oil resistance based on their physical properties after exposure to a standard test fluid. In this RMA classification, the rubber samples are immersed in IRM 903 oil at 100°C for 70 hours. (See ASTM Method D-471 for a detailed description of the oil and the testing procedure.) As a guide to the user of hose in contact with oil, the oil resistance classes and a corresponding description are listed.

*(Reprinted From RMA Hose Handbook IP-2 2003 Edition)*

#### PHYSICAL PROPERTIES AFTER EXPOSURE TO OIL

	VOLUME CHANGE MAXIMUM	TENSILE STRENGTH RETAINED
<b>Class A</b> (High Oil Resistance)	<b>+25%</b>	<b>80%</b>
<b>Class B</b> (Medium Oil Resistance)	<b>+65%</b>	<b>50%</b>
<b>Class C</b> (Limited Oil Resistance)	<b>+100%</b>	<b>40%</b>

## GENERAL INFORMATION

### FOOD HOSE STANDARDS

#### **FDA Compliant**

All Goodyear® Engineered Products hoses having the “FDA” designation have tubes made with FDA/USDA compliant materials. The requirements for rubber tubes are described in the Code of Federal Regulations standard 21 CFR 177.2600 while plastic tubes are described in 21 CFR 175.300.

#### **NSF 61**

Clear Pliovic® tubes are certified as meeting the NSF 61 potable water standard.

#### **3-A Sanitary**

All Goodyear® Engineered Products rubber hoses having the “3-A” designation meet the requirements of the dairy industrial standard described in 3-A Sanitary Standard 18-03, Class III which determines rubber materials suitable for temperature of exposure to product up to 120°F and temperature of exposure to chemical solutions used in cleaning and bacterial treatment up to 180°F.

All Goodyear® Engineered Products plastic hoses having the “3-A” designation meet the requirements of the dairy industrial standard described in 3-A Sanitary Standard 20-20 and are recommended for transmission of raw and pasteurized milk and other high water content dairy items.

In order to ensure compliance with the above standards, all Goodyear® Engineered Products hoses shall be thoroughly cleansed prior to their first use in accordance with good manufacturing and use practices.

## GENERAL INFORMATION

### PRECAUTIONS FOR WELDING HOSE USE

- FOREWORD:** This bulletin is issued to alert dealers and users of welding hose that special hose may be necessary for use with certain fuel gases.
- SCOPE:** This bulletin relates to welding hose manufactured in conformance to RMA/CGA specification or to welding hose conforming to individual manufacturer or user specifications.
- CAUTION:** The fuel gases listed below are recorded to alert welding hose users to a potential hazard with these or similar gases. It should be noted that no condemnation of any of the gases listed is intended. The purpose is to advise against the use of hose that may not be designed for a particular gas or pressure. A user of any fuel gas is urged to relate the type of gas along with the expected working pressure (regulator setting) to the hose manufacturer for a specific hose recommendation.
- ALERT LISTING:** These and similar fuel gases may damage some grades or types of welding hose:
- APACHI, FLAMEX, MAPP, PROPANE, PROPYLENE.**
- Use of the indicated or similar fuel gases at regulator settings above 40 psi may be particularly hazardous.
- Users are also alerted against the use of ACETYLENE at any pressure above 15 psi.

#### IN-SERVICE CAUTION:

The user is first cautioned to shut off the gas at the torch and then at the regulator or supply source when the torch will not be used for periods in excess of 30 minutes, in order to limit permeation of gas through the hose wall.

The user is further cautioned not to shut off the fuel gas at the regulator or supply source first as a flashback may result and thereby damage the hose.

Adequate ventilation must be provided in confined areas where fuel gas is being used to prevent the accumulation or concentration of gas that could be explosive or otherwise harmful to personnel.

#### WARNING:

**THE USE OF CERTAIN FUEL GASES MAY DAMAGE WELDING HOSE AND  
LEAD TO FIRES AND EXPLOSIONS.**



**31.00**

**APPENDIX D**



## GENERAL INFORMATION

PRODUCTION RUN MINIMUM REQUIREMENTS KEY				
ORDER CODE PREFIX	MANUFACTURING FACILITY	SIZE (ID)	CONSTRUCTION	MINIMUM PRODUCTION RUN
532	Norfolk	3/16"-2"	Textile Reinforcement	2,500 feet
		3/16"-2"	Wire Reinforcement	2,500 feet
535	Norfolk	3/16"-1/2"	Textile Reinforcement	5,000 feet
		5/8"-2"		2,500 feet
536	Norfolk	3/16"-1/2"	Textile Reinforcement	2,500 feet
		5/8"-2"		2,500 feet
537	Cosmoflex	1 1/4"-1 1/2"		4,500 feet
		2"		4,500 feet
		2 1/2"-3"		4,500 feet
		4"		3,300 feet
		6"		1,800 feet
539	Norfolk	3/16"-1/2"	Wire Reinforcement	5,000 feet
		5/8"-2"		2,500 feet
540	Cosmoflex	1/4"-3/8"		15,000 feet
		1/2"-1"		5,000 feet
541	Granford	1"-12"	Hand Built	Built to length, Max 100'
		12"-18"	Hand Built	Built to length, Max 50'
542	Granford	1/2"-6 5/8"	Ply or Ply with Helic Wire	400 feet increments <sup>1</sup>
543	Granford	1/2"-6 5/8"	Ply or Ply with Helic Wire	400 feet increments <sup>1</sup>
546	Granford	1/2"-6 5/8"	Ply or Ply with Helic Wire	400 feet increments <sup>1</sup>
549	Granford	1/2"-6 5/8"	Ply or Ply with Helic Wire	400 feet increments <sup>1</sup>
569*	Mt. Pleasant	3/16"-1 1/2"		5,000 feet
586	Cosmoflex	3/4"-1"		3,000 feet
		1 1/4"-2"		2,000 feet
		2 1/2"-3"		1,000 feet
		4"		700 feet
		5"		500 feet
		6"		300 feet
		7"		200 feet
		8"-10"		200 feet
		595*	Mt. Pleasant	3/16"-1/2"
5/8"-1"				5,000 feet
1 1/4"-2"				5,000 feet
598*	Mt. Pleasant	3/16"-1/2"		5,000 feet
		5/8"-1"		5,000 feet
		1 1/4"-2"		5,000 feet

Note: Certain special manufacturing items may require longer minimum runs.

Samples: Contact Customer Service for sample availability.

\*Minimum production runs are a guide only, they are subject to change without notification.

<sup>1</sup>Granford hoses with ply/helic wire construction in 6" ID and above require a 200' increment production run.





**32.00**

**APPENDIX E**



## GENERAL INFORMATION

### CARE, MAINTENANCE AND STORAGE

Reprinted from RMA Hose Handbook IP-2 Seventh Edition 2003

Hose has a limited life and the user must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials. The periodic inspection and testing procedures described here provide a schedule of specific measures which constitute a minimum level of user action to detect signs indicating hose deterioration or loss of performance before conditions leading to malfunction or failure are reached.

#### SAFETY WARNING:

**Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose might result in its failure to perform in the manner intended and might result in possible damage to property and serious bodily injury.**

General instructions are also described for the proper storage of hose to minimize deterioration from exposure to elements or environments which are known to be deleterious to rubber products. Proper storage conditions can enhance and extend substantially the ultimate life of hose products.

#### General Care and Maintenance

Hose should not be subjected to any form of abuse in service. It should be handled with reasonable care. Hose should not be dragged over sharp or abrasive surfaces unless specifically designed for such service. Care should be taken to protect hose from severe end loads for which the hose or hose assembly were not designed. Hose should be used at or below its rated working pressure; any changes in pressure should be made gradually so as not to subject the hose to excessive surge pressures. Hose should not be kinked or be run over by equipment. In handling large size hose, dollies should be used whenever possible; slings or handling rigs, properly placed, should be used to support heavy hose used in oil suction and discharge service.

#### General Test & Inspection Procedures

An inspection and hydrostatic test should be made at periodic intervals to determine if a hose is suitable for continued service. A visual inspection of the hose should be made for loose covers, kinks, bulges or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service.

The periodic inspection should include a hydrostatic test for one minute at 150% of the recommended working pressure of the hose. An exception to this would be the woven jacketed fire hose.\* During the hydrostatic test, the hose should be straight, not coiled or in a kinked position. Water is the usual test medium and, following the test, the hose may be flushed with

alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

**SAFETY WARNING:** Before conducting any pressure tests on hose, provisions must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

1. Air or any other compressible gas must never be used as the test media because of the explosive action of the hose should a failure occur. Such a failure might result in possible damage to property and serious bodily injury.
2. Air should be removed from the hose by bleeding it through an outlet valve while the hose is being filled with the test medium.
3. Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10-foot (3m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in such a manner that they do not contact the hose which must be free to move.
4. The outlet end of the hose is to be bulwarked so that a blown-out fitting will be stopped.
5. Provisions must be made to protect testing personnel from the forces of the pressure media if a failure occurs.
6. Testing personnel must never stand in front of or in back of the ends of a hose being pressure tested.

*Continued on next page*

\*Woven jacket fire hose should be tested in accordance with the service test provisions contained in the current edition of National Fire Protection Association Bulletin No. 1962 - Standard for the Care, Use and Service Testing of Fire Hose.

## GENERAL INFORMATION

### CARE, MAINTENANCE AND STORAGE (continued)

7. When liquids such as gasoline, oil, solvent or other hazardous fluids are used as the test fluid, precautions must be taken to protect against fire or other damage should a hose fail and the test liquid be sprayed over the surrounding area.

The Rubber Manufacturers Association has published separately a series of Hose Technical Information bulletins describing Maintenance, Testing and Inspection recommendations. Reference should be made to the current RMA catalogue of Publications to determine the availability of the latest edition. Bulletins published as of January 2003 include the following:

#### Publication No.

IP 11-1- Steam Hose  
 IP 11-2- Anhydrous Ammonia Hose  
 IP 11-4- Oil Suction and Discharge Hose  
 IP 11-5- Welding Hose  
 IP 11-7- Chemical Hose  
 IP 11-8- Fuel Dispensing Hose

#### Storage

Rubber hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials.

The appropriate method for storing hose depends to a great extent on its size (diameter and length), the quantity to be stored and the way in which it is packaged. Hose should not be piled or stacked to such an extent that the weight of the stack creates distortions on the lengths stored at the bottom. Since hose products vary considerably in size, weight and length, it is not practical to establish definite recommendations on this point. Hose having a very light wall will not support as much load as could a hose having a heavier wall or hose having a wire reinforcement. Hose which is shipped in coils or bales should be stored so that the coils are in a horizontal plane.

Whenever feasible, rubber hose products should be stored in their original shipping containers, especially when such containers are wooden crates or cardboard cartons which provide some protection against the deteriorating effects of oils, solvents and corrosive liquids; shipping containers also afford

some protection against ozone and sunlight. Certain rodents and insects will damage rubber hose products, and adequate protection from them should be provided.

Cotton-jacketed hose should be protected against fungal growths if the hose is to be stored for prolonged periods in humidity conditions in excess of 70%.

The ideal temperature for the storage of rubber products ranges from 50°F to 70°F (10°C to 21°C) with a maximum limit of 100°F (38°C). If stored below 32°F (0°C), some rubber products become stiff and would require warming before being placed in service. Rubber products should not be stored near sources of heat, such as radiators, base heaters, etc., nor should they be stored under conditions of high or low humidity.

To avoid the adverse effects of high ozone concentration, rubber hose products should not be stored near electrical equipment that may generate ozone or be stored for any lengthy period in geographical areas of known high ozone concentration. Exposure to direct or reflected sunlight, even through windows, should also be avoided. Uncovered hose should not be stored under fluorescent or mercury lamps which generate light waves harmful to rubber.

Storage areas should be relatively cool and dark, and free of dampness and mildew. Items should be stored on a first-in, first-out basis, since even under the best of conditions, an unusually long shelf life could deteriorate certain rubber products.