

# Versilon™ WCSR Hose

## Multi-Purpose Chemical Transfer Hose

### Ultra Flexible

Versilon WCSR is constructed using an EPDM rubber covered stainless steel braided low profile, helically convoluted PTFE inner core. This design provides a much reduced force-to-bend and smaller minimum bend radius as compared to smooth bore rubber covered hoses. WCSR is easy to handle and kink resistant, thus providing a longer service life. WCSR hose meets the most demanding requirements for both vacuum and pressure applications and is ideally suited for many critical chemical processes and fluid transfer applications.

### Excellent Chemical and Acid Resistance

WCSR is constructed with chemical resistant high purity PTFE inner core and reinforced with an acid resistant EPDM outer cover. WCSR is the ideal hose to transfer corrosive chemicals. Using highly engineered wrapping technology, the vulcanized EPDM outer cover brings peace of mind by providing corrosion protection for the hose when acid or other chemicals are accidentally exposed to the outer surface of the hose.

### Safe and Durable

The high tensile strength type 304 stainless steel mechanical braid reinforcement provides high working pressures and vacuum ratings. The fully vulcanized EPDM cover is abrasion resistant and protects the stainless steel braid from mechanical damage as well as adding thermal and hand protection for the hose operators.

### Features and Benefits

- PTFE fluoropolymer liner is highly chemical resistant and compatible with most chemicals
- Acid resistant EPDM cover resists abrasion and provides corrosion protection
- Low profile PTFE convoluted inner core ensures superior flexibility
- High tensile strength type 304 stainless steel braid provides high pressure rating & superior vacuum resistance
- High purity PTFE inner core is neutral to taste, non-stick & non-contaminating
- Helically convoluted inner core is designed for easy drainage
- SIP/CIP and auto-clavable for easy cleaning

### Typical Applications

- Chemical transfer
- Steam transfer
- Acid lines
- Adhesive transfer
- CIP lines
- SIP lines
- Chemical filling lines

### Regulatory Compliance

- Compliant with FDA 21CFR 177.1550
- US Pharmacopeia Class VI

## WCSR Hose Specifications

Part Number	Inside Diameter		Outside Diameter		Maximum Working Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Hg @ 70°F		Weight	
	(in)	(mm)	(in)	(mm)	(psi)	(MPa)	(psi)	(MPa)	(in)	(mm)	(in)	(mm)	(lb/ft)	(kg/m)
2712WCSR	3/4	19.1	1.20	30.5	1,000	6.89	4,000	27.58	2.80	71.1	29.9	760	0.40	0.60
2716WCSR	1	25.4	1.40	35.6	900	6.21	3,600	24.82	4.50	114.3	29.9	760	0.60	0.89
2724WCSR	1-1/2	38.1	2.20	55.9	550	3.79	2,200	15.17	6.50	165.1	29.9	760	0.90	1.34
2732WCSR	2	50.8	2.60	66.0	500	3.45	2,000	13.79	8.00	203.2	5.0	127	1.10	1.64

### ⚠ Important:

**Burst pressure** ratings at ambient 70°F (21°C). See applicable notes below on vacuum/pressure ratings at temperatures other than ambient.

**Working Pressure** is given at 70°F; decrease working pressure 1% for every 2°F above 212°F.

**Vacuum Rating** is given at 70°F; decrease vacuum rating 1% for every 2°F above 212°F. For 1-1/4" and larger sizes, vacuum rating decreases when installed less than 2X minimum bend radius.

**Extended Service Life Tip:** Saint-Gobain suggests using full-length anti-kink armor casing or at least 16" to 24" long anti-kink cuffs at each fitting end to help reduce the strain on the crimp collar and fittings in high load installations. Prolonged service at elevated temperatures will reduce total service life.

NOTE: Weights and outside diameter dimensions are nominal. Data given is for hose only. End fitting vs. hose pressure limitations must be considered and the lower of the two ratings must be used on assemblies.

Fluoropolymer Physical Properties	Durometer Hardness Shore, A, 15s	Color	Maximum Recommended Operating Temp. °F (°C)	Tensile Strength PSI (MPa)	Ultimate Elongation %	Brittle Temperature °F (°C)	Specific Gravity	Water Absorption %	Chemical Solvent Resistance	Folding Endurance (cycles)
ASTM Method	D2240-91			D1457, D1708, D638	D1457, D1708, D638	D746-79	D792	D570-81		
PTFE	58D	Translucent	500 (260)	3000 - 5000 (20.7 - 34.5)	300	-450 (-268)	2.13 - 2.22	<0.01	Excellent	10 <sup>6</sup>

## Construction

Inner Tube:	PTFE								
Cover:	Smooth EPDM rubber								
Reinforcement:	High tensile strength 304 stainless steel mechanical braid								
Color:	Gray with a black layline in gray lettering Other colors are available as special orders with minimum quantity requirements Consult factory for more details								
Temperature Rating:	-65°F to +350°F -54°C to +177°C								
Maximum Length:	<table border="1"> <tr> <td>3/4"</td> <td>100'</td> </tr> <tr> <td>1"</td> <td>60'</td> </tr> <tr> <td>1-1/2"</td> <td>60'</td> </tr> <tr> <td>2"</td> <td>60'</td> </tr> </table>	3/4"	100'	1"	60'	1-1/2"	60'	2"	60'
3/4"	100'								
1"	60'								
1-1/2"	60'								
2"	60'								

## Fitting Options

### Versilon Crimp Style Fittings

- Over 40 styles of stocked crimp-style fittings in a wide range of materials
- Standard: 316L stainless steel (wetted surfaces). Also available in zinc plated carbon steel in MNPT & Female JIC
- Standard: 304 stainless steel for crimp collars

### Common Media

- Sulfuric acid
- High pressure steam
- Hydrofluoric acid
- Silicone/hot glues
- Caustic solutions
- Syrups/flavors

Limited Warranty: For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product(s) to be free from defects in manufacturing. Our only obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse, or inability to use this product(s). SAINT-GOBAIN DISCLAIMS ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



**Saint-Gobain Performance Plastics**  
1600 Cottontail Lane  
Somerset, NJ 08873  
1-800-435-3992  
Tel: (732) 652-0910  
Fax: (732) 764-3871

www.processsystems.saint-gobain.com



NOTE: Saint-Gobain Performance Plastics Corporation does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or of any final product into which the product(s) may be incorporated by the purchaser and/or user. The purchaser and/or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.

Versilon™ is a trademark of Saint-Gobain Performance Plastics.