



## VERSILON® WTLCTPFA HOSE

SMOOTH BORE  
UNPIGMENTED PFA  
FLUOROPOLYMER

Saint-Gobains' Versilon WTLCTPFA hose is designed to satisfy the semiconductor market on multiple levels: safety, performance, cleanliness and wide temperature capability range. Addressing the stringent purity requirements of the semiconductor industry, WTLCTPFA is constructed using an unpigmented PFA fluoropolymer inner core featuring superior chemical resistance and temperature rated up to 350°F (177°C). The hose is reinforced with multiple polyester ply cords, EPDM rubber and double helix, high tensile strength carbon steel wires. This construction provides a durable, kink resistant hose without fraying problems associated with stainless steel braided wire reinforcements.

### UNPIGMENTED PFA INNER CORE

The wide range of chemicals used in semiconductor wet processes require hoses that do not leach out over time, ensuring the highest purity level possible. WTLCTPFA hose, with its unpigmented PFA inner core was specifically developed for the most extreme and ultra-high purity service conditions, meeting the cleanliness demands and guaranteeing pure chemical transfer in the semiconductor manufacturing industry.

### FEATURES AND BENEFITS

- Reduced extractables: lower levels of extractable fluoride ions reduce silicone wafer corrosion
- Superior chemical and heat resistance
- Wide temperature range
- Durable, kink resistant, with no external wire reinforcement to potentially fray
- Easy to clean non-stick smooth tube for assured sterility
- Can be cleaned with steam, caustics, solvents or other cleaning agents

### APPLICATIONS

- Semiconductor component processing
- Semiconductor wafer carriers
- Semiconductor piping systems

## SPECIFICATIONS

Discription	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
3812WTLCTPFA	3/4	19.1	1.30	33.0	500	3.45	2,000	13.79	4.50	114.3	29.9	760	0.58	0.86
3816WTLCTPFA	1	25.4	1.56	39.6	450	3.10	1,800	12.41	6.00	152.4	29.9	760	0.73	1.09
3824WTLCTPFA	1-1/2	38.1	2.13	54.1	300	2.07	1,200	8.27	11.00	279.4	29.9	760	1.23	1.83
3832WTLCTPFA	2	50.8	2.68	68.1	250	1.72	1,000	6.89	13.50	342.9	29.9	760	1.72	2.56

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.

## TECHNICAL SPECIFICATIONS &amp; CONSTRUCTION

Burst Pressure	At ambient temp. 70°F (21°C). See applicable notes below on vacuum/pressure ratings at temperatures other than ambient	
Working Pressure	Given at 70°F; decrease working pressure 1% for every 2°F above 212°F.	
Vacuum Rating	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.	
Color	White with a gray layline in white lettering	
Operating Temperature	-40°F (-40°C) to +350°F (+177°C)	
Inner Tube	Unpigmented PFA	
Cover	EPDM rubber	
Reinforcement	Multiple polyester ply cord and EPDM rubber Double helix, high tensile strength carbon steel wire	
Maximum Length:*	100 feet (all sizes)	
Minimum Overall Length of Hose Assemblies (OAL) with Anti-Kink Casing	3/4" & 1" (19.1 & 25.4 mm)	36" (91.44 cm) OAL
	1-1/2" (38.1 mm)	36" (91.44 cm) OAL**
	2" (50.8 mm)	48" (121.92 cm) OAL**

\* Consult factory for maximum length by size for flare-thru fittings.

\*\* With same size sanitary clamped ends shorter lengths are possible;

Contact us for more information

## 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)

## Versilon PFA Encapsulated Fittings

Available in 150 lb. (68 kg) swivel style flanges, female cam and groove (locking and non-locking swivel style, 316 stainless steel body) with a PFA encapsulation

## COMMON MEDIA

- Hydrofluoric acid
- Hydrochloric acid
- Sulfuric acid
- Sodium hydroxide
- Peroxide

**! PFA encapsulated fittings are pressure rated only. Not rated for vacuum service.**

**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.



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## Saint-Gobain Performance Plastics

**China** (+8621) 5472 1568  
Sales.PPLCN@saint-gobain.com

**Europe** (+33) 3 85 20 27 00  
quotes-clm@saint-gobain.com

**Germany/Austria**  
(+49) 2131 53359-59  
sales-neuss@saint-gobain.com

**India** (+91) 80 46978888  
pplindia.hc@saint-gobain.com

**Japan** (+81) 3 6256 9703  
ls-japan@saint-gobain.com

**Korea** (+82) 2 6098 0180  
LS-Korea@saint-gobain.com

**Southeast Asia** (+66) 38 667 800  
cs.sgplsea@saint-gobain.com

**Taiwan** (+886) 2 2503 4201  
Taiwan.ppl@saint-gobain.com

**United States** (+1) 856-423-6630  
DL-NA-MickletonCustomerService@saint-gobain.com

**All Other Regions**  
www.furon.com

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