



## Versilon™ WTLCTPFA Hose

### Smooth Bore Unpigmented PFA Fluoropolymer Hose

#### Ideal for Semiconductor Market

Saint-Gobain Performance Plastics' Versilon WTLCTPFA hose is designed to satisfy the semiconductor market on many 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 plicords, EPDM rubber and double helix, high tensile strength carbon steel wires. This construction provides a durable, kink resistant hose without the 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

#### Typical Applications

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

#### Regulatory Compliance

- US Pharmacopeia Class VI

## WTLCTPFA Hose Specifications

### ⚠ Important:

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)
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

**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.

**Flare-Thru 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.

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.

## Construction

Inner Tube:	Unpigmented PFA		
Cover:	EPDM rubber		
Reinforcement:	Multiple polyester plycord and EPDM rubber Double helix, high tensile strength carbon steel wire		
Color:	White with a gray layline in white lettering		
Temperature Rating:	-40°F to +350°F -40°C to +177°C		
Maximum Length:*	100 feet (all sizes)		
Minimum Overall Length of Hose Assemblies (OAL) with Anti-Kink Casing:	3/4" & 1" 1-1/2" 2"	36" OAL 36" OAL** 48" OAL**	

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

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

## 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)

### Versilon Flare-Thru Fittings

- Available in 150 lb. swivel style flanges, female cam and groove (locking and non-locking swivel style, 316 stainless steel body)

## Common Media

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

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