

## Versilon™ TLCT/WTLCT/SFTL Hose

### Smooth Bore Fluoropolymer Hose

#### Robust Construction

Saint-Gobain Performance Plastics' Versilon TLCT hose is constructed with a white FEP inner core and reinforced with multiple polyester plycords and EPDM rubber. The kink-resistant EPDM reinforced design delivers extended service life and durability. This construction is ideal for use in a wide range of demanding applications.

#### Excellent Chemical Resistance

The FEP fluoropolymer liners used in TLCT have been the top choice in the process industry for many years. The inner tube's excellent chemical resistance minimizes the corrosive effects of transferred media. TLCT delivers exceptional flow rates due to the ultra-smooth inner bore surface, preventing virtually all material entrapment and bacteria build-up.

#### Features and Benefits

- Unexcelled chemical resistance
- Full vacuum rated
- 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
- Resistant to chemicals, ozone and abrasion

#### Typical Applications

- Rail car unloading
- Chemical trailer loading/unloading
- Portable pumps
- Isolation dampeners
- CIP
- Food and beverage
- Flavors
- Load cell applicators
- Caustic cleaning

#### Fittings 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)
- Up to 2" only

## TLCT/WTLCT/SFTL 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
8TLCT	1/2	12.70	1.00	25.40	500	3.45	2,000	13.79	3.00	76.20	29.9	760	0.42	0.63
12TLCT	3/4	19.05	1.30	33.02	500	3.45	2,000	13.79	4.50	114.30	29.9	760	0.59	0.88
16TLCT	1	25.40	1.56	39.62	450	3.10	1,800	12.41	6.00	152.40	29.9	760	0.75	1.12
20TLCT	1-1/4	31.75	1.78	45.21	320	2.21	1,400	9.65	9.00	228.60	29.9	760	0.91	1.35
24TLCT	1-1/2	38.10	2.13	54.10	300	2.07	1,200	8.27	11.00	279.40	29.9	760	1.21	1.80
32TLCT	2	50.80	2.68	68.07	250	1.72	1,000	6.89	13.50	342.90	29.9	760	1.70	2.53
40TLCT	2-1/2	63.50	3.16	80.26	200	1.38	800	5.52	20.00	508.00	29.9	760	2.00	2.98
48TLCT	3	76.20	3.69	93.73	150	1.03	600	4.14	22.00	558.80	29.9	760	2.52	3.75
64TLCT	4	101.60	4.69	119.13	150	1.03	600	4.14	40.00	1016.00	29.9	760	3.79	5.64

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.

### ⚠ 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 @ 70°F; decrease working pressure 1% for every 2°F above 212°F.

**Vacuum Rating** is given @ 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 min. 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.

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		
FEP	55D	Translucent	400 (204)	3400 (23)	325	-100 (-73)	2.15	<0.01	Excellent	5-80 x 10 <sup>3</sup>
PFA	60D	Translucent	500 (260)	3600 (25)	300	-320 (-196)	2.15	<0.03	Excellent	50-500 x 10 <sup>3</sup>
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:	FEP																				
Cover:	EPDM rubber																				
Reinforcement:	Multiple polyester plycord and EPDM rubber Double helix, high tensile strength carbon steel wire																				
Color:	Green with a white layline in green lettering or white with a gray layline in white lettering (white cover designated WTLCT) TLCT covers can be color-coded to identify specific process lines or trace departments Special colors available with minimum order quantities																				
Temperature Rating:	-40°F to +350°F -40°C to +177°C																				
Maximum Length:	<table border="1"> <tr> <td>1/2"</td> <td>100'</td> <td>1-1/2"</td> <td>100'</td> </tr> <tr> <td>5/8"</td> <td>100'</td> <td>2"</td> <td>100'</td> </tr> <tr> <td>3/4"</td> <td>100'</td> <td>2-1/2"</td> <td>60'</td> </tr> <tr> <td>1"</td> <td>100'</td> <td>3"</td> <td>60'</td> </tr> <tr> <td>1-1/4"</td> <td>100'</td> <td>4"</td> <td>30'</td> </tr> </table>	1/2"	100'	1-1/2"	100'	5/8"	100'	2"	100'	3/4"	100'	2-1/2"	60'	1"	100'	3"	60'	1-1/4"	100'	4"	30'
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1-1/4"	100'	4"	30'																		

\*Special order; consult factory.  
Consult factory for maximum length by size for flare-thru fittings.

Minimum overall length (OAL) of hose assemblies with anti-kink casing:	1/2" & 5/8" 3/4" & 1" 1-1/2"	24" OAL 36" OAL 36" OAL**	2" 3" & 4"	48" OAL** Consult factory
Minimum length of flare-thru flange x flange assemblies:	3/4" 1" 1-1/2"	11" 11" 11"	2"	12"

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

### Industry Approvals & Compliances

- Compliant with FDA 21CFR177.1550
- US Pharmacopeia Class VI
- 3-A Sanitary Standard 62-02

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