

# Versilon™ TLCTCO Hose

## Smooth Bore Fluoropolymer Convoluted Outer Cover Hose

### Ideal for Process Applications

With increased flexibility, easily identified by a reduced force-to-bend and small minimum bend radius, Saint-Gobain's Versilon TLCTCO will quickly demonstrate reasons to include this hose construction in your demanding process applications.

### Flexibility

While achieving flexibility in hose assemblies is always a goal in hose design considerations, pressure limitations, long-term service life, hose durability and ease of handling must also be considered. TLCTCO meets these objectives and is ideally suited for many critical process applications in the chemical, pharmaceutical and industrial marketplace.

### Purity

High purity, ultra smooth FEP fluoropolymer liners used in the manufacture of TLCT series hose have been leading the process industry for many years. The TLCTCO hose series is an improvement in flexibility of a proven, reliable, industry leading product line that will add increased productivity, ease of handling, better value and increased service.

### Features and Benefits

- Reduced force-to-bend
- Improved bend radius
- Ultra-flexible, easy to handle, kink resistant
- Smooth ID when bent
- High pressure rating
- Sterilizable, autoclavable
- Imparts no taste or odor
- Non-aging liner
- Full vacuum rated
- Resistant to chemicals, ozone and abrasion

### Typical Applications

- Load cells
- Skid transfer
- Pumping stations/portable pumps
- Vessel or tank transfer
- Rail car loading/unloading
- Transfer lines
- Chemical process lines

### 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)

## TLCTCO 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
12TLCTCO	3/4	19.05	1.30	33.02	400	2.76	1,600	11.03	2.50	63.50	29.9	760	0.63	0.94
16TLCTCO	1	25.40	1.56	39.62	350	2.41	1,400	9.65	3.75	95.25	29.9	760	0.79	1.18
20TLCTCO*	1-1/4	31.75	1.78	45.21	320	2.21	1,280	8.83	7.00	177.80	29.9	760	0.93	1.38
24TLCTCO	1-1/2	38.10	2.13	54.10	300	2.07	1,200	8.27	7.00	177.80	29.9	760	1.16	1.73
32TLCTCO	2	50.80	2.68	68.07	250	1.72	1,000	6.89	8.75	222.25	29.9	760	1.61	2.40

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.  
\*500 ft. minimum order required.

### ⚠ 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.

**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:	Convuluted EPDM rubber
Reinforcement:	Multiple polyester plicord and EPDM rubber Double helix, high tensile strength carbon steel wire
Color:	Green with a white layline in green lettering
Temperature Rating:	-40°F to +350°F -40°C to +177°C
Maximum Length:	3/4"   100'
	1"   100'
	1-1/4"   100'
	1-1/2"   100'
	2"   100'

### Industry Approvals & Compliances

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

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