

VERSILON™
Fluid Performance

Versilon™ CTLCT Hose

Smooth Bore Anti-Static Fluoropolymer Hose

Corrosion Resistant and Electrostatic Dissipating Liner

Fluoropolymer liners offer good corrosion resistance and insulating properties. If one transfers materials that have the potential to generate static electricity and the electrons flowing across the surface don't interact (positive and negative electrons flowing back and forth), a charge will build up on the inner surface of the tube. If the charge exceeds the dielectric strength of the material, dielectric breakdown or arcing can occur. This arcing electric charge can pierce the tube, causing a leak or possibly an explosion.

Electrostatic build-up within a hose may be influenced by the material being conveyed, velocity of that transferred material, filtration (particularly with paper or glass fiber elements) or turbulence generating members in the flow stream and to some extent, humidity, to a lesser extent, temperature.

Solution To Handling Static Producing Fluid Flow

CTLCT anti-static chemical transfer hose is manufactured with an improved surface finish using PFA fluoropolymer liners. This manufacturing process allows for a much smoother surface finish, ensuring a ripple and bump free I.D. hose assembly. Using PFA liners also permit continuous 100-ft. lengths of stocked 0.75" to 2" I.D. sizes.

Concerns about electrostatic charge build-up within the interior of your smooth I.D. rubber covered hose are virtually eliminated along with any concerns about product build-up normally associated with industry standard convoluted I.D. anti-static hoses.

Features and Benefits

- Electrostatic dissipating conductive inner tube
- Improved I.D. surface finish
- Excellent bend radius
- Increased maximum lengths up to 100 ft.
- CTLCT is manufactured to have a maximum resistance of $10^6 \Omega$ when inducing a charge of 500 volts D.C.
- Autoclavable
- Imparts no taste or odors

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)

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


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CTLCT 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
12CTLCT	3/4	19.05	1.30	33.02	500	3.45	2,100	14.48	4.50	114.30	29.9	760	0.61	0.91
16CTLCT	1	25.40	1.56	39.62	450	3.10	1,800	12.41	6.00	152.40	29.9	760	0.78	1.16
24CTLCT	1-1/2	38.10	2.13	54.10	300	2.07	1,350	9.31	11.00	279.40	29.9	760	1.27	1.89
32CTLCT	2	50.80	2.68	68.07	250	1.72	1,200	8.27	13.50	342.90	29.9	760	1.78	2.65

⚠ 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.

Electrostatic Discharge: The following is a list of chemicals that have a tendency to cause concern regarding potential electrostatic build-up. Keep in mind moisture (humidity) and the flow rate are important considerations. By far, steam, kerosene or gasoline-based fuels are the biggest concerns.

Cyclohexane	Dipentene	Mineral Oil	Silicone Oil
Decalin	Freon	N-Octane	Skydrol 500
Demethyl Phthalate	Hexane	Naphthalene	Skydrol 700
Diacetone	Hezene	Paint	Steam
Dibutyl Ether	Hydraulic Oil	Paint	Toluene
Dibutyl Phthalate	Hydrazine	Petroleum	Turpentine
Dibutyl Sebacate	Lacquer Solvents	Phosphate Ester	Varnish
Diocetyl Phthalate	Lacquers	Pinerie	

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.

3" and 4" hose can be manufactured on request; consult factory.

Minimum runs required: 3" = 240' and 4" = 120'

Maximum length: 3" = 60' and 4" = 30'

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 ³
PFA	60D	Translucent	500 (260)	3600 (25)	300	-320 (-196)	2.15	<0.03	Excellent	50-500 x 10 ³
PTFE	58D	Translucent	500 (260)	3000 - 5000 (20.7 - 34.5)	300	-450 (-268)	2.13 - 2.22	<0.01	Excellent	10 ⁶

Construction

Inner Tube:	Black electrostatic dissipating conductive PFA								
Cover:	EPDM rubber								
Reinforcement:	Multiple polyester pycord 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:*	<table border="0"> <tr> <td>3/4"</td> <td>100'</td> </tr> <tr> <td>1"</td> <td>100'</td> </tr> <tr> <td>1-1/2"</td> <td>100'</td> </tr> <tr> <td>2"</td> <td>100'</td> </tr> </table>	3/4"	100'	1"	100'	1-1/2"	100'	2"	100'
3/4"	100'								
1"	100'								
1-1/2"	100'								
2"	100'								

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

Industry Approvals & Compliances

- US Pharmacopeia Class VI
- Complies with industry standards using ISO 8031 testing methods or MIL-H-27267

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.



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