

Flexible Components CTLCT Series

Anti-Static Chemfluor® PFA Lined EPDM Rubber Hose



BIOPHARMACEUTICAL PRODUCTS

Anti-Static Hoses of Chemfluor®

Features/Benefits

- Improved I.D. surface finish
- Excellent bend radius
- Increased maximum lengths up to 100 ft.
- CTLCT is manufactured to have a maximum resistance of 106 Ω when inducing a charge of 500 volts D.C.
- Autoclavable
- Temperature rating: -40°F to +350°F
- Imparts no taste or odors

Approvals

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

Typical Applications

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

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
- To some extent, humidity and to a lesser extent, temperature

CTLCT anti-static chemical transfer hose is now manufactured with an improved surface finish using Chemfluor® PFA fluoropolymer liners. This manufacturing process allows for a much smoother surface finish ensuring a ripple and bump free I.D. hose assembly. Using Chemfluor® PFA liners also permit continuous 100 ft. lengths of stocked 3/4" to 2" I.D. sizes. Concerns about electrostatic charge build-up within the interior of your smooth I.D. rubber covered hose is virtually eliminated along with any concerns about product build-up normally associated with industry standard convoluted I.D. anti-static hoses.

Chemfluor® is a registered trademark of Saint-Gobain Performance Plastics.

Flexible Components CTLCT

Hose Specifications

Hose Size ID (in.)	Part Number	Nominal O.D. (In.)	Recommended Working Pressure (P.S.I.)	Vacuum Rating @70°F (In. of hg)**	Minimum Burst Pressure (P.S.I.)	Minimum Recommended Bend Radius (In.)	Approx. Weight Per Ft. (Lbs.)
3/4	12CTLCT	1.25	500	29.9	2000	4.5	0.62
1	16CTLCT	1.50	450	29.9	1800	6.0	0.75
1-1/2	24CTLCT	2.05	300	29.9	1200	11.0	1.20
2	32CTLCT	2.65	250	29.9	1000	13.5	1.50

* Burst pressure ratings at ambient 70°F (21°C). See applicable notes below on vacuum/pressure ratings @temperatures other than ambient. Weights & outside diameter information is "nominal"

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° 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 for vacuum service

Extended Service Life Tip: Flexible Components suggests using full length "anti-kink" casing or at least 16" to 24" long "anti-kink cuffs." (See "Options" section of Flexible Components catalog FLS 3003R) at each fitting end to help reduce the strain on the crimp collar and fitting in high load installations. Extended service at elevated temperatures will reduce total service life.

Construction:

- Flexible Components CTLCT smooth Chemfluor® PFA fluoropolymer tube is internally bonded to an EPDM rubber hose construction
- Multiple (2) pycords and (5) EPDM rubber layer reinforcements
- Double helix, high tensile strength carbon steel wire support for flexibility and vacuum resistance
- Chemically resistant cover
- Ozone and abrasion resistant cover of EPDM rubber
- Available with a standard green cover and white stripe

Available End Connections

- Over 40 fitting styles available in a wide range of materials
- 316L stainless steel standard material of construction for wetted surfaces

Flare-Thru Fittings

- Available in lap joint 150# flanged and female cam-lock styles, locking and non-locking swivel.

Approvals:

- USP Class VI
- Industry standards using ISO 8031 testing or MIL-H-27267

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

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