



### Ideal for Process Applications

With increased flexibility, easily identified by a reduced force-to-bend and small minimum bend radius, Flexible Components TLCTCO will quickly demonstrate reasons to include this new 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 Chemfluor® FEP fluoropolymer liners used in the manufacture of Flexible Components TLCT series hose have been leading the process industry for many years. The Flexible Components TLCTCO hose series is an improvement in flexibility of a proven, reliable industry leading product line that we are sure will add increased productivity, ease of handling, better value and increased service.

## BIOPHARMACEUTICAL PRODUCTS

*Smooth Chemfluor® FEP fluoropolymer lined EPDM rubber covered hose externally "convoluted outer" cover*

### Features/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

- Over 40 styles of stocked PermaSeal® crimp-style fittings
- A wide range of materials available
- Standard: 316L stainless steel (wetted surfaces)

# TLCTCO Hose Specifications

## Chemfluor® Fluoropolymer Hose

Part Number	Inside Diameter		Outside Diameter		Max Working Pressure		Min Burst Pressure		Min Bend Radius		Vacuum Hg @ 70°F	
	in.	mm.	in.	mm.	PSI	Mpa	PSI	Mpa	in.	mm.	in.	mm.
12TLCTCO	3/4	19.1	1-1/4	31.8	400	2.76	1,600	11.03	2.50	64	29.9	75.95
16TLCTCO	1	25.4	1-1/2	38.1	350	2.41	1,400	9.65	3.75	95	29.9	75.95
24TLCTCO	1-1/2	38.1	2	52.1	300	2.07	1,200	8.27	7.00	178	29.9	75.95
32TLCTCO	2	50.8	2-5/8	67.3	250	1.72	1,000	6.90	8.75	222	29.9	75.95
40TLCTCO	2-1/2	63.5	3-1/4	81.3	200	1.38	800	5.52	18.00	457	29.9	75.95
48TLCTCO	3	76.2	3-3/4	94.0	150	1.03	600	4.14	22.00	559	29.9	75.95
64TLCTCO	4	101.6	4-3/4	119.4	150	1.03	600	4.14	34.00	864	29.9	75.95

NOTE: Weights and outside diameter dimensions are nominal. Data given is for TLCTCO hose only. End fitting vs. hose pressure limitations must be considered and the lower of the two ratings must be used on assemblies.

### Typical Physical Properties of Chemfluor® Liner

Property	ASTM Method	Value or Rating
Durometer Hardness Shore A, 15 Sec	D2240	55D
Tensile Strength psi (MPa)	D412	2600 (17.9)
Ultimate Elongation,%	D412	275
Tear Resistance lb-f/inch (kN/m)	D624	N/A
Specific Gravity	D792	2.17
Color		white

### Industry Approvals & Compliances

- FDA approved per 21CFR177.1550
- US Pharmacopoeia Class VI

### Construction

- Inner Tube: Chemfluor® FEP
- Cover: Convuluted EPDM rubber
- Reinforcement:
  - Multiple polyester pycord and EPDM rubber
  - Double helix, high tensile strength carbon steel wire

### Colors

- Green cover/white stripe

### Temperature Rating

-40°F to +350°F (-40°C to +177°C)

### Important Helpful Tips in Hose Applications

**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% or every 2°F above 212°F.

**Vacuum Rating** is given @ 70°F; Decrease vacuum rating 1% for every 2°F above 212°F. For 1-1/2" and larger sizes, vacuum rating decreases when installed less than 2 X min. bend radius.

**Extended Service Life Tip:** Flexible Components suggest using full-length anti-kink armor casing or at least 16" to 24" long anti-kink cuffs (see Hose Cover Options, pages 75-76) 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.

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