

# STYLE TSC PTFE HOSE SMOOTH BORE MEDIUM PRESSURE

## *A PTFE hose for a wide variety of gas and fluid applications*

**Unisource Style TSC** PTFE hose is the workhorse of the industry for a variety of gas and fluid applications.

**Style TSC** combines a smooth bore PTFE (polytetrafluorethylene) inner core with a 300 series stainless steel overbraid. A high pressure rated assembly is complete by attaching special swage type fittings made in a variety of styles.

Smooth bore, medium pressure PTFE hose is utilized in many applications, including automotive, high-pressure gas, food processing, pharmaceutical, chemical transfer, and process water. It can be found installed in gas cylinder filling plants, factories, on trucks and buses, automobiles, and a myriad of OEM equipment. PTFE hose may be the ideal solution if the application requirements exceed the chemical, heat, and other limitations of rubber, metal and plastic hose.

**Style TSCZ** post-sintered hose is a two-braid 3600 PSIG construction product. It is manufactured in -5 size only and provides a lower effusion rating for gaseous applications.

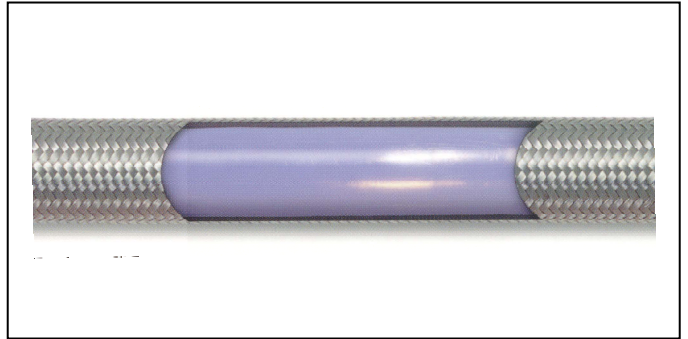
**Style TSC** hose has a temperature range of -65°F. to 450°F. continuous service, or -100°F. to 500°F. intermittent service. Working pressure ratings range from 750 PSIG (-20) to 3000 PSIG (-3), depending on size, all with a 4:1 safety factor. **Style TSC** meets or exceeds SAE 100R14 specifications.

Some applications require a conductive inner line to dissipate static electrical charges. High resistivity fluids or gases at high velocity cause positive electrical charges to build on the inside of the PTFE liner. If not dissipated to the end of the hose, the charge will build until it arcs through the tube wall to the braid, causing catastrophic hose failure. Specify **Style TSC-B** with a thin **conductive liner** on the I.D. for static dissipation when this situation is present.

When an exterior bronze braid is desired instead of the standard stainless steel braid, specify Style TSB.

**Style TSC** PTFE hose is available in sizes 3/16" nominal to 1-1/4" nominal. Fittings options include male and female pipe, JIC/SAE female swivel, two-bolt flange, male inverted flare in straight, 45° and 90° female elbows, sanitary tri clamp, SAE 45° and 90° female swivel elbows and adapters in various standard configurations. Both swage and crimp style fittings are offered, along with reusable fittings. Materials include 300 series stainless steel, brass, and zinc or cadmium plated carbon steel.

All Unisource smooth-bore PTFE assemblies can be hydrostatically tested prior to shipment. When specified, Unisource will hydrotest to 1.52 times the working pressure of the hose. Unisource also has in-house cleaning facilities for those assemblies requiring CGA level cleaning for oxygen service.



### **PTFE....The Product**



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**Flexible & Strong.** Combined with metal braid, PTFE hose can perform under high pressure and continuous flexing and vibration conditions. Braided PTFE hose can withstand hundreds of thousands of flex cycles without failure or fatigue.

**Chemically Resistant and Inert.** PTFE hose can handle an almost endless variety of fluids at extremes of pressure and temperature. It is the most universal hose known.

**Wide Ranging Temperature.** Hoses made of PTFE can typically withstand temperatures from -100°F to +500°F (-73°C to +260°C) under most operating conditions. Even 350°F steam/cold water cycling is no match for PTFE.

**Non-Stick, Low Friction.** Almost no substance can adhere to PTFE. This property insures the purity of any fluid when transferred in a PTFE hose. It also allows for repeated reuse or alternate use with different fluids. With a coefficient of friction as low as 0.05, deposits cannot build up and flow rates are high throughout the hose life.

**Resistant To Moisture.** By its nature PTFE lacks affinity to moisture. Absorption is less than 0.01%. In addition, no odor, taste, or color is added to the transfer fluid by PTFE, making it an FDA approved material for food contact.

**Ageless.** Weather, exposure, time...none of these affect the properties of PTFE. PTFE has limitless shelf life, it does not age.

## Technical Specifications

Style TSC .030 wall, non-conductive virgin PTFE tubing, overbraided with 300 series stainless steel wire.

Style TSC-B .030 wall, conductive lined, virgin PTFE tubing, overbraided with 300 series stainless steel wire.

### Style TSC and TSC-B

Part No. TSC	Part No. TSC-B	Nom. Hose Size	Avg. I.D. (In.)	Avg. O.D. (In.)	Oper Pressure (PSI)	Burst Pressure (PSI)	Bend Radius (In.)	Weight (Lbs./Ft.)	Max Cont. Lghts (Feet)
TSC-03	TSC-B-03	3/16"	.125	.250	3000	12000	2	.047	300
TSC-04	TSC-B-04	1/4"	.187	.312	3000	12000	2	.077	400
TSC-05	TSC-B-05	5/16"	.250	.375	3000	12000	3	.098	300
TSC-06	TSC-B-06	3/8"	.312	.445	2500	10000	4	.110	300
TSC-07	TSC-B-07	7/16"	.375	.503	2250	9000	4.5	.124	300
TSC-08	TSC-B-08	1/2"	.405	.549	2000	8000	5.2	.124	200
TSC-10	TSC-B-10	5/8"	.500	.648	1500	6000	6.5	.154	180
TSC-12	TSC-B-12	3/4"	.625	.778	1200	4800	7.7	.170	150
TSC-14	TSC-B-14	7/8"	.750	.885	1100	4400	8.2	.198	100
TSC-16	TSC-B-16	1"	.875	1.030	1000	4000	9	.273	100
TSC-18	TSC-B-18	1-1/8"	1.000	1.135	900	3600	10	.305	75
TSC-20	TSC-B-20	1-1/4"	1.125	1.290	750	3000	16	.350	75

Note: Please contact Unisource for specifications on Style TSB with bronze wire.



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