



Sani-Tech® STHT®-WR Wire-Reinforced Silicone Hose

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Sani-Tech® STHT®-WR platinum-cured silicone, wire-reinforced hose, constructed of multi-ply reinforcement and 316L SS helical wire, provides unsurpassed flexibility while maintaining high-pressure ratings with full vacuum capabilities. Sani-Tech STHT-WR is manufactured with an ultra-pure, biopharmaceutical-grade silicone to ensure your process integrity.

Characteristics

The manufacturing process is carefully controlled from receiving through production. In all our production sites our tubing is produced and double bag packaged in an ISO 7 clean room. Inspection and lot traceability are readily accessible as batch numbers are assigned. All packages are identified by external labeling on both the bag and the high-quality, crush-proof box.

Saint-Gobain Performance Plastics' manufacturing facility has the ability to create a variety of unique color-coding systems for your particular application needs. STHT®-WR available with custom coded coloring.

Biocompatibility

Sani-Tech® STHT®-WR is manufactured from the finest grade of silicone materials and is fully characterized, validated and tested to a variety of specifications including USP Class VI criteria, ISO 10993 and European Pharmacopoeia 3.1.9. Sani-Tech STHT-WR platinum-cured braid-reinforced silicone hose has a masterfile with the U.S. Food and Drug Administration. For additional compliance data, please review characterization information on the back page.

Features / Benefits

- Ultra-flexible bend radius
- Available in 25-foot standard lengths
- Sterilizable via autoclave or gamma
- Temperature range from -80°F (-62°C) to 500°F (260°C)
- Custom color-coding available
- Meets all USP Class VI, EP 3.1.9 FDA and ISO criteria
- High-pressure and vacuum rating

Single-use Applications

- Biopharmaceutical manufacturing
- Pharmaceutical processing and production
- Vacuum pump applications
- Bulk transfer
- Load cell
- Bioreactor process lines
- Production fermentation

Connections

- Sanitary, non-metallic fittings
- Radially crimped 316L SS or non-metallic fittings
- Adapter connections



Sani-Tech® STHT®-WR Hose Inventory Sizes

Part Number	ID Inches (mm)	OD Inches (mm)	Wall Inches (mm)	Maximum Working Pressure PSI (bar) at 68°F	Minimum Burst Pressure PSI (bar) at 68°F	Minimum Bend Radius Inches (mm)	Weight Per Foot lb. (kg/m)	Vacuum Rating IN. HG (mmHg)
STHT-WR-0500	.500 (12.7)	.920 (23.4)	0.21 (5.3)	150 (10.3)	600 (41.4)	1.5 (38.1)	0.25 (0.4)	29.9 (760)
STHT-WR-0750	.750 (19.1)	1.190 (30.2)	0.22 (5.6)	125 (8.6)	500 (34.5)	2.5 (63.5)	0.36 (0.5)	29.9 (760)
STHT-WR-1000	1.000 (25.4)	1.450 (36.8)	0.225 (5.7)	125 (8.6)	500 (34.5)	4 (101.6)	0.48 (0.7)	29.9 (760)
STHT-WR-1500	1.500 (38.1)	2.160 (54.9)	0.33 (8.4)	125 (8.6)	500 (34.5)	5.5 (139.7)	1 (1.5)	29.9 (760)
STHT-WR-2000	2.000 (50.8)	2.690 (68.3)	0.345 (8.7)	100 (6.9)	400 (27.6)	7 (177.8)	1.25 (1.9)	29.9 (760)

Characterization

The bio-compatibility of STHT® platinum-cured silicone hose, manufactured with Sani-Tech® silicone, has been tested and complies with the parameters set forth in the following test protocols:

- USP XXIV (88) biological reactivity, *in vivo*
 - Intracutaneous test, systemic injection test, implantation test
- USP XXIV (87) biological reactivity, *in vitro*
 - L929 MEM elution, AGAR diffusion
- European Pharmacopoeia 3.1.9

Sterilization Methods

- Autoclavable
- Radiation — up to 2.5 Mrad (25 Kilogray)
- Gas — ethylene oxide

NOTE: STHT® hose will not deteriorate with repeated autoclaving. This method of sterilization is strongly recommended. STHT silicones should not be considered for be continuous steam applications.

WARNING: Do not use STHT® silicone hose in hot oil or acid applications

Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness Shore A, 15 Sec	D2240	65
Tensile Strength psi (MPa)	D412	1291 (8.9)
Ultimate Elongation, 100%	D412	693
Tear Resistance lb-f/inch (kN/m)	D624	329 (.037)
Specific Gravity	D792	1.19
Tensile Modulus @ 100% Elongation, psi (MPa)	D412	351 (2.42)

Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

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Saint-Gobain Performance Plastics

3910 Terry Diane St.
Beaverton, MI 48612
Tel: (888) 387-0067
Tel: (989) 435-9533
Fax: (989) 435-2355

www.biopharm.saint-gobain.com

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