

Saint-Gobain Life Sciences – Bioprocess Solutions



Sani-Tech® STHT®-R Braid-Reinforced Silicone Hose

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Sani-Tech® STHT®-R platinum-cured braid-reinforced silicone hose is an ultra-flexible, high-purity hose that was developed for higher pressure applications. STHT-R is manufactured with Sani-Tech® 65 brand silicone resin.

Sani-Tech* STHT*-R platinum-cured silicone hose resists temperature extremes, radiation, moisture, compression sets, and chemical attack to fluids transported within it. Sani-Tech STHT-R hose withstands repeated autoclaving and resists the adherence of blood products and other sanitary fluids.

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. Sani-Tech® STHT®-R can be manufactured with a variety of custom braiding color selections.

Biocompatibility

Sani-Tech® STHT®-R is manufactured from the finest grade of silicone materials and is characterized, validated and tested to a variety of specifications including USP Class VI criteria, ISO 10993 and European Pharmacopoeia 3.1.9. For additional compliance data please contact our customer service department.

Platinum-Cured Braid-Reinforced Silicone Hose

Features/Benefits

- Meets USP Class VI and ISO 10993
- High pressure rating
- Ultra-flexible
- Improved bend radius over wire-reinforced hose
- Temperature range from -80°F (-62°C) to 500°F (260°C)
- · Available in 25 and 50 foot lengths
- Lot Number Traceability

Typical Applications

- Load cell
- Pump applications
- Cell cultures
- Vessel or tank transfer
- Laboratory use

Connections

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





Typical Physical Properties of Sani-Tech® STHT®-R

Property	ASTM Method	Value or Rating	
Durometer Hardness Shore A, 15 Sec	D2240	65	
Tensile Strength psi (MPa)	D412	1376	
Ultimate Elongation, 100%	D412	668	
Tensile Modulus	D412	444	
Tear Resistance, lb-f/inch (kN/m)	D624	326	
Specific Gravity	D792	1.21	

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.

Sterilization Methods

Autoclavable	
Radiation	up to 5.0 Mrad (50 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 continuous steam applications.

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

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

Selection Guide of Sani-Tech® STHT®-R Hose

Part number	I.D. inches (mm)	O.D. inches (mm)	Wall thickness inches (mm)	Recommended 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)
STHT-R-0062	.062 (1.6)	.272 (6.9)	.105 (2.7)	200 (13.8)	775 (53.4)	C/F	C/F
STHT-R-0125	.125 (3.2)	.355 (9.0)	.115 (2.9)	190 (13.1)	775 (53.4)	C/F	C/F
STHT-R-0187	.187 (4.8)	.447 (11.4)	.130 (3.3)	185 (12.8)	750 (51.7)	C/F	C/F
STHT-R-0250	.250 (6.4)	.500 (12.7)	.125 (3.2)	180 (12.4)	725 (50)	1.00 (25)	.080 (.36)
STHT-R-0375	.375 (9.5)	.625 (15.9)	.125 (3.2)	180 (12.4)	725 (50)	2.00 (50)	.117 (.05)
STHT-R-0500	.500 (12.7)	.875 (22.2)	.187 (4.7)	175 (12.1)	700 (48.3)	3.00 (76)	.159 (.07)
STHT-R-0625	.625 (15.9)	1.000 (25.4)	.187 (4.7)	125 (8.6)	500 (34.5)	4.00 (102)	.221 (.10)
STHT-R-0750	.750 (19.1)	1.125 (28.6)	.187 (4.7)	105 (7.2)	425 (29.3)	4.00 (102)	.264 (.12)
STHT-R-0875	.875 (22.2)	1.250 (31.8)	.187 (4.7)	100 (6.9)	400 (27.6)	5.00 (127)	.310 (.14)
STHT-R-1000	1.000 (25.40)	1.375 (34.93)	.187	75	300	6.00	.347

Sani-Tech® and STHT® are registered trademarks.



Saint-Gobain Performance Plastics

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