

# Sani-Tech® STHT®-R-HD

## Heavy Duty Silicone Hose

### Ideal for Elevated Pressure Applications

Sani-Tech® STHT®-R-HD high purity grade silicone hose is ideally suited for elevated pressure applications where strength, durability and continuous length are critical. Designed to meet the specific requirements of the pharmaceutical customer, this hose offers a high pressure rating, and unsurpassed performance characteristics.

### Characteristics

Sani-Tech® STHT®-R-HD is a non-metallic reinforced platinum-cured silicone hose that can be repeatedly sterilized by autoclave, radiation, or ethylene oxide gas. This product remains flexible and performs as specified through a temperature range of -80°F (-62°C) to 500°F (260°C). Sani-Tech STHT-R-HD is available in sizes ranging from 1/2" ID through 2" ID enabling the specifier or user the flexibility of properly sizing the application. Sani-Tech STHT-R-HD comes in white (standard) as stocked products. Consult the factory for additional colors or customization options.

### Biocompatibility

Sani-Tech®, STHT®-R-HD is manufactured from Sani-Tech® 65 brand silicone resin, a highly biocompatible silicone hose which meets USP Class VI, FDA CFR 177.2600, ISO 10993 and European Pharmacopoeia 3.1.9 standards. For additional compliance data please refer to the characterization information on the back page.



### Features / Benefits

- High pressure ratings
- USP Class IV platinum-cured silicone
- Ultra-flexibility
- Improved bend radius over wire reinforced hose
- Sterilizable via autoclave or gamma
- Supplied in continuous lengths to reduce installation time
- Available in custom colors for line identification

### Single-use Applications

- Load cell
- Skid transfer
- Pump cultures
- Vessel or tank transfer
- Laboratory use
- Media dispensing
- Bioreactor process lines

### Connection

- Radially crimped 316L SS fittings
- (consult factory for other connection options)*

## Sani-Tech® STHT®-R-HD Platinum-Cured Heavy Duty Reinforced Hose

### Characterization

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

### Sani-Tech® STHT®-R-HD Toxicological Profile

- USP Class VI Systemic Toxicity and Intracutaneous Reactivity
- USP Intramuscular implant
- Cytotoxicity
- Pyrogen testing
- Hemolysis testing
- European Pharmacopoeia 3.1.9

### Sterilization Methods

- Autoclavable
- Radiation - up to 5.0 Mrad (50 Kilogray)
- Gas - Ethylene Oxide

### Inventory Sizes

Part Number	ID Inches (mm)	OD Inches (mm)	Supplied Length feet (cm)	Maximum Working Pressure PSI (bar) at 68°F	Minimum Bend Radius Inches (mm)	Minimum Burst Pressure PSI (bar) at 68°F
STHT-R-HD-0500	.500 (12.7)	.936 (23.7)	50 (1524)	200 (13.8)	2.50 (63.5)	800 (55)
STHT-R-HD-0750	.750 (19)	1.216 (30.9)	50 (1524)	170 (11.7)	3.00 (76.2)	680 (47)
STHT-R-HD-1000	1.000 (25.4)	1.470 (37.3)	50 (1524)	125 (8.6)	3.50 (88.9)	500 (35)
STHT-R-HD-1500	1.500 (38)	2.160 (54.8)	25 (762)	100 (6.9)	6.50 (165.1)	400 (28)
STHT-R-HD-2000	2.000 (50.8)	2.720 (69.1)	25 (762)	75 (5.2)	9.50 (241.3)	300 (21)

Temperature range: -80°F (-62°C) to 500°F (260°C)

Note: Weights and outside diameter dimensions are nominal. Data given is for hose only. End fittings vs. hose pressure and the lower the two ratings must be used on assemblies. Pressure ratings are shown at ambient temperature (68°F). As temperature increases, working pressure and vacuum ratings will decrease. Contact factory for recommendations for assembly applications that exceed 250°F.

## Typical Physical Properties

Property	ASTM Method	Value or Rating (metric)
Durometer Hardness Shore A, 15 Sec	D2240	65
Tensile Strength psi, (MPa)	D412	1291 (8.9)
Ultimate Elongation, %	D412	580
Tear Resistance lb-f/inch (kN/m)	D624	343 (60.0)
Specific Gravity	D792	1.22
Tensile Modulus, @ 100% Elongation, psi (MPa)	D412	448 (3.1)

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.

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Rua Santo Bassan, 111  
Bosque das Palmeiras  
CEP 13086-745 - CAMPINAS - SP

Tel: (19) 3257 - 3400  
atendimento@fluitek.com.br

[www.fluitek.com.br](http://www.fluitek.com.br)

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