

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



*Sani-Tech® STHT™-WR is an ultra-flexible, high-pressure, platinum-cured silicone hose.*

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

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. Inspection and lot traceability is 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 is available in 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.

## BIOPHARMACEUTICAL PRODUCTS

### Platinum-Cured Wire-Reinforced Silicone Hose

#### Features/Benefits

- Biopharmaceutical grade
- Ultra-flexible bend radius
- Available in 25-foot standard lengths
- Unsurpassed inner surface smoothness
- Autoclavable and sterilizable
- Temperature range from -80°F (-62°C) to 500°F (260°C)
- Imparts no taste or odor
- Custom color-coding available
- Meets all USP Class VI, EP 3.1.9 FDA and ISO criteria
- High-pressure and vacuum rating

#### Typical 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 | Maximum Working Pressure PSI at 68°F | Minimum Burst Pressure PSI at 68°F | Minimum Bend Radius Inches | Weight Per Foot Lb. | Vacuum Rating IN. HG |
|--------------|----------------|----------------|-------------|--------------------------------------|------------------------------------|----------------------------|---------------------|----------------------|
| STHT-WR-0500 | .500 (12.70)   | .920 (23.37)   | .210        | 150                                  | 600                                | 1.5                        | .25                 | 29.9                 |
| STHT-WR-0750 | .750 (19.05)   | 1.190 (30.23)  | .220        | 125                                  | 500                                | 2.5                        | .36                 | 29.9                 |
| STHT-WR-1000 | 1.000 (25.40)  | 1.450 (36.83)  | .225        | 125                                  | 500                                | 4.0                        | .48                 | 29.9                 |
| STHT-WR-1500 | 1.500 (38.10)  | 2.160 (54.86)  | .330        | 125                                  | 500                                | 5.5                        | 1.00                | 29.9                 |
| STHT-WR-2000 | 2.000 (50.80)  | 2.690 (68.33)  | .345        | 100                                  | 400                                | 7.0                        | 1.25                | 29.9                 |

NOTE: Burst pressure will decrease by 5% for each 200°F (93°C) increase up to 500°F (260°C) maximum pressure for STHT™-WR. The diameter measurements are nominal values.

### Characterization

The biocompatibility 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
- ISO 10993
- FDA CFR 177.2600
- Meets or exceeds USDA standard and 3A approval
- 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 consistent 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<br>Shore A, 15 Sec | D2240       | 65              |
| Tensile Strength<br>psi (MPa)         | D412        | 1291            |
| Ultimate Elongation, 100%             | D412        | 693             |
| Tear Resistance<br>lb-f/inch (kN/m)   | D624        | 329             |
| Specific Gravity                      | D792        | 1.19            |
| Tensile Modulus                       | D412        | 351             |

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.

**SANI-TECH® HOSE IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL**

Distributed By:

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## BIOPHARMACEUTICAL PRODUCTS

*Come through clean.™*

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