# VERSILIC <sup>™</sup> SPX-70 I.B. High Strength Silicone Hose



Versilic™ hose, produced from a proprietary combination of silicone elastomers, provides durability and versatility in a range of applications.

### **Designed for Demanding Requirements**

Peroxide-cured Versilic Silicone Hose Formulation SPX-70 I.B. is designed for use in applications where flexibility, resiliency and durability are required. Produced from a proprietary combination of silicone elastomers, Versilic Silicone Hose optimizes critical physical properties such as tensile strength, elongation and compression set, resulting in a more physically durable product. Its smooth inner surface reduces the risk of particulate entrapment and microscopic buildup during fluid transfer.

# **Consistently Reliable Results**

Every lot of raw material used in the manufacture of Versilic Silicone Hose undergoes a series of in-house physical property testing before use. This stringent evaluation of ingredients helps to provide the repeatable quality found in every foot of Versilic Silicone Hose. Annual testing on actual hose samples is performed for reaffirmation of adherence to USP Class VI Criteria. Heavy metals extraction analysis as well as cytotoxicity testing is performed to confirm the hose's biocompatibility.

## **Complies with Regulatory Guidelines**

Versilic Silicone Hose complies fully with the requirements of the USP Class VI Criteria and is entirely non-toxic, non-hemolytic and non-pyrogenic. It also meets 3-A Sanitary Standards, FDA 21 CFR PART 177.2600 Criteria and NSF 51 Standard.

# Saint-Gobain Performance Plastics: The Leader in Silicone Hose Innovation

Versilic Silicone Hose provides versatility in use for a broad range of applications. However, for situations requiring uniquely engineered properties, Saint-Gobain Performance Plastics can design a formulation suited to meet your specific needs. Specialty formulations may be designed to provide a combination of features, including ultra-high temperature resistance, electrical conductivity, closed cell sponge, pigmented colors and long flexural life.

#### **BIOPHARMACEUTICAL PRODUCTS**

High-strength silicone hose ideal for veterinary, medical and pharmaceutical applications

#### Features/Benefits

- Provides Resiliency, Long Life and Durability
- Ultra-Smooth Inner Bore Reduces Risk of Particulate Entrapment
- Tough Braid Reinforcement Permits Use Under Elevated Working Pressures
- Taste and Odor Free
- Withstands Repeated CIP and SIP Cleaning and Sterilization
- Temperature Resistant from -112°F to 320°F

## **Typical Applications**

- Veterinary Pharmaceuticals
- Sterile Filling and Processing
- Water Purification Systems
- Cosmetic Production
- Beverage Dispensing
- · Food and Dairy Processing
- High Temperature Chemical Processing
- Sanitary Fitting Assembly



#### **VERSILIC™ SPX-70 I.B. Silicone Hose Inventory Sizes**

| Part<br>Number | I.D.<br>(inches) | O.D.<br>(inches) | Length<br>(feet) | Minimum<br>Bend<br>Radius | Max. Work<br>at 73°F<br>(psi )* | ing Pressure<br>at 320°F<br>  (psi)* |      | n Rating<br>Mercury<br>  at 320°F |
|----------------|------------------|------------------|------------------|---------------------------|---------------------------------|--------------------------------------|------|-----------------------------------|
| AB6001718      | 3/16             | .443             | 50               | 1/4                       | 180                             | 175                                  | 29.9 | 29.9                              |
| AB6001719      | 1/4              | .515             | 50               | 1/2                       | 145                             | 140                                  | 29.9 | 29.9                              |
| AB6001720      | 3/8              | .687             | 50               | 3/4                       | 210                             | 190                                  | 29.9 | 29.9                              |
| AB6001721      | 1/2              | .847             | 50               | 1                         | 185                             | 165                                  | 29.9 | 29.9                              |
| AB6001722      | 5/8              | .980             | 50               | 1-1/2                     | 135                             | 125                                  | 29.9 | 29.9                              |
| AB6001671      | 3/4              | 1.150            | 50               | 2-1/4                     | 170                             | 105                                  | 29.9 | 29.9                              |
| AB6001724      | 1                | 1.390            | 50               | 2-1/2                     | 105                             | 75                                   | 29.9 | 29.9                              |
| AB6421725      | 1-1/4            | 1.636            | 25               | 4-1/4                     | 80                              | 65                                   | 25.0 | 20.0                              |
| AB6421726      | 1-1/2            | 1.900            | 25               | 5-1/4                     | 70                              | 45                                   | 10.0 | 10.0                              |

<sup>\*</sup>Working pressures are calculated at a 1:4 ratio relative to burst pressure using ASTM D1599.

The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the hose's ability to withstand pressures, including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the hose for use.

#### **VERSILIC SPX-70 I.B. Sterilization Methods**

Autoclavable — Steam 30 minutes at 15 psi (250°F) Gas — Ethylene Oxide Radiation — Radiation up to 2.5 MRad

Versilic™ is a trademark.

# VERSILIC<sup>™</sup> SPX-70 I.B. Silicone Hose Typical Physical Properties

| Property   | ASTM Method         | Value or Rating         |
|--|---------------------|-------------------------|
| Durometer Hardness<br>Shore A, 15 Sec  | D2240-91            | 71                      |
| Color  | _                   | Translucent             |
| Tensile Strength*<br>psi (MPa)   | D412-92             | 1,200 (8.3)             |
| Ultimate Elongation, %   | D412-92             | 300                     |
| Tear Resistance<br>lb-f/inch (kN/m)  | D624-91<br>Die B    | 130 (22.8)              |
| Specific Gravity   | D792-91             | 1.20                    |
| Water Absorption, %<br>24 hrs. @ 23°C  | D570-95             | 0.08                    |
| Compression Set<br>Constant Deflection, %<br>@ 158°F (70°C) for 22 hrs.<br>@ 347°F (175°C) for 22 hrs. | D395-89<br>Method B | 10<br>30                |
| Brittleness by Impact<br>Temp., °F (°C)  | D746-95             | Less than<br>-112 (-80) |
| Maximum Recommended<br>Operating Temp.,°F (°C)   | _                   | 320 (160)               |
| Dielectric Strength v/mil (kV/mm)  | D149-93             | 511<br>(20.1)           |
| Tensile Modulus, 200%<br>psi (MPa)   | D412-92             | 700 (4.8)               |

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

VERSILIC SILICONE HOSE IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL

#### **BIOPHARMACEUTICAL PRODUCTS**

Come through clean.<sup>™</sup>

#### Saint-Gobain Performance Plastics

3910 Industrial Drive Beaverton, MI 48612 Tel: (989) 435-9533 Tel: (888) 387-0067 Fax: (989) 435-2355



IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses. Laboratory and clinical tests must be conducted in accordance with applicable regulatory requirements in order to determine the safety and effectiveness for use of tubing in any particular application.

For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product to be free from defects in materials and workmanship. Our only obligation will be to replace any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risk, if any, including the risk of injury, loss or damage, direct or consequential, arising out of the use, misuse, or inability to use, this product. THIS WARRANTY IS IN LIEU OF THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. No deviation is authorized.

Saint-Gobain Performance Plastics Corporation assumes no obligations or liability for any advice furnished by it, or for results obtained with respect to those products. All such advice is given and accepted at the buyer's risk.