

VERSILIC® SPX-50 High Strength Silicone Tubing



Versilic® tubing, 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 Tubing Formulation SPX-50 is designed for use in applications where flexibility, resiliency and durability are required. Produced from a proprietary combination of silicone elastomers, Versilic® Silicone Tubing 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 Tubing 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 Tubing. Annual testing on actual tubing 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 tubing's biocompatibility.

Complies with Regulatory Guidelines

Versilic® Silicone Tubing 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 Tubing Innovation

Versilic® Silicone Tubing 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 tubing ideal for veterinary, medical and pharmaceutical applications

Features/Benefits

- Provides resiliency, long life and durability
- Ultra-smooth inner bore reduces risk of particulate entrapment
- Taste and odor free
- Withstands temperature extremes from -75°F to 350°F
- Meets USP Class VI and FDA criteria

Typical Applications

- Veterinary pharmaceuticals
- Respiratory and anesthesia equipment
- Sterile filling and processing
- Analytical instrumentation
- Cosmetic production
- Environmental remediation
- Beverage dispensing
- Food and dairy processing
- Appliance manufacturing
- Electronic equipment

VERSILIC® SPX-50 Silicone Tubing Manufactured Sizes and Pressures

Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Length (feet)	Minimum Bend Radius (inches)	Max. Working Pressure	
						at 73°F (psi) *	at 320°F (psi)*
ABX00001	1/32	3/32	1/32	50	1/8	22	21
ABX00002	1/16	1/8	1/32	50	1/4	14	13
ABX00003	1/16	3/16	1/16	50	1/4	22	21
ABX00004	3/32	5/32	1/32	50	1/4	11	10
ABX00005	3/32	7/32	1/16	50	1/4	18	16
ABX00006	1/8	3/16	1/32	50	3/8	9	8
ABX00007	1/8	1/4	1/16	50	1/2	14	13
ABX00009	5/32	7/32	1/32	50	3/4	7	6
ABX00011	3/16	1/4	1/32	50	1	7	6
ABX00012	3/16	5/16	1/16	50	1/2	11	10
ABX00013	3/16	3/8	3/32	50	3/8	14	13
ABX00014	3/16	7/16	1/8	50	3/8	18	16
ABX00016	1/4	5/16	1/32	50	1-1/2	5	4
ABX00017	1/4	3/8	1/16	50	3/4	9	8
ABX00018	1/4	7/16	3/32	50	5/8	12	11
ABX00019	1/4	1/2	1/8	50	5/8	14	13
ABX00022	5/16	7/16	1/16	50	1-1/4	7	6
ABX00023	5/16	1/2	3/32	50	5/8	10	9
ABX00024	5/16	9/16	1/8	50	3/4	7	6
ABX00027	3/8	1/2	1/16	50	1-1/2	9	8
ABX00028	3/8	9/16	3/32	50	1	11	10
ABX00029	3/8	5/8	1/8	50	1	6	5
ABX00033	7/16	5/8	3/32	50	1-3/4	8	7
ABX00036	1/2	5/8	1/16	50	3	5	4
ABX00037	1/2	11/16	3/32	50	1-3/4	7	6
ABX00038	1/2	3/4	1/8	50	1-1/2	9	8
ABX00045	5/8	13/16	3/32	50	3	6	5
ABX00046	5/8	7/8	1/8	50	2-1/2	7	6
ABX00053	3/4	1	1/8	50	2-1/2	7	6
ABX42062	1	1-1/4	1/8	25	5	5	4
ABX42069	1-1/4	1-1/2	1/8	25	6	5	4
ABX42074	1-1/2	2	1/4	25	7	6	5

*Working pressures are calculated at a 1:5 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 tubing'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 tubing for use.

Versilic® is a registered trademark.

VERSILIC® Silicone Tubing Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness Shore A, 15 Sec	D2240-91	50
Color	—	Translucent
Tensile Strength psi (MPa)	D412-92	1,500 (10.3)
Ultimate Elongation, %	D412-92	450
Tear Resistance lb-f/inch (kN/m)	D624-91 Die B	148 (26)
Specific Gravity	D792-91	1.17
Water Absorption, % 24 hrs. @ 23°C	D570-81	0.06
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs. @ 347°F (175°C) for 22 hrs.	D395-89 Method B	10 33
Brittleness by Impact Temp., °F (°C)	D746-79	-112 (-80)
Maximum Recommended Operating Temp., °F (°C)	—	350 (177) Continuous 400 (204) Intermittent
Dielectric Strength v/mil (kV/mm)	D149-93	480 (19)
Tensile Modulus, @ 200% Elongation, psi (MPa)	D412-92	425 (2.9)

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.

VERSILIC® Tubing Sterilization Methods

Autoclavable in steam
Gas — Ethylene Oxide
Radiation — Gamma or E-Beam

BIOPHARMACEUTICAL PRODUCTS

Come through clean.™

Saint-Gobain Performance Plastics

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

Verneret

La Mothe-Aux-Aulnaies
89120 Charny, France
Tel: 33-386-637-878
Fax: 33-386-637-777

**VERSILIC® SILICONE TUBING IS NOT INTENDED
FOR USE AS AN IMPLANT MATERIAL**


SAINT-GOBAIN
PERFORMANCE PLASTICS



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.