

SAINT-GOBAIN MEDICAL

# BIO-SIL<sup>®</sup> PRECISION

## Tubing for Medical Device Manufacturers

Bio-Sil<sup>®</sup> Precision silicone tubing has been uniquely formulated by the material experts at Saint-Gobain Medical, and was developed specifically for medical pumping applications. Bio-Sil products are the result of decades of material science expertise and state-of-the-art manufacturing processes.

### CHARACTERISTICS

As part of our family of silicone products, Bio-Sil Precision has been formulated to optimize the pumping characteristics of silicone, while providing a level of repeatability and consistency that is not found in other pump tubings. The material formulation is tightly controlled to reduce variation in the physical properties of the material.

### CONSISTENCY AND PERFORMANCE

Produced using the Compass Technology<sup>®</sup> extrusion process, Bio-Sil Precision provides best in class tolerance control on both material physical properties and tubing dimensions. The result is greater consistency in the product and less variation in its performance in your application.

Compass Technology for silicone tubing offers optimized formulations tailored to your specific application, ensuring precision tolerances for critical dimensions and fluid system modeling for product design. This technology platform delivers premium parts that consistently perform across manufacturing runs. Additionally, our in-process data collection capability helps control dimension tolerances and enhance quality control and documentation standards, expediting your validation process.

Product recommendations are based on a combination of industry knowledge, material science expertise, and/or material testing data. Contact Saint-Gobain Medical for further tubing recommendation information.



### FEATURES/BENEFITS

- Sterilizable
- Consistent material performance
- Bio-Sil Precision has met Plastic Class VI, as described in USP <88> (2022) requirements

### TYPICAL APPLICATIONS

- Diagnostic sample handling
- Infusion therapy
- Insulin delivery
- Oncology treatment



# BIO-SIL® PRECISION TUBING

## BIO-SIL® PRECISION TUBING MANUFACTURED SIZES

Part Number	I.D.		O.D.		Wall Thickness		Length feet
	inches	mm	inches	mm	inches	mm	
BSP-012-025	0.012	0.305	0.025	0.635	0.007	0.178	25
BSP-020-037	0.020	0.508	0.037	0.940	0.009	0.229	25
BSP-020-083	0.020	0.508	0.083	2.108	0.031	0.794	50
BSP-025-047	0.025	0.635	0.047	1.194	0.011	0.279	50
BSP-030-065	0.030	0.762	0.065	1.651	0.018	0.457	50
BSP-031-094	0.031	0.794	0.094	2.381	0.031	0.794	50
BSP-040-085	0.040	1.016	0.085	2.159	0.023	0.584	50
BSP-058-077	0.058	1.473	0.077	1.956	0.010	0.254	50
BSP-063-095	0.063	1.588	0.095	2.413	0.017	0.432	50
BSP-063-125	0.063	1.588	0.125	3.175	0.031	0.794	50
BSP-078-125	0.078	1.981	0.125	3.175	0.023	0.584	50
BSP-094-156	0.094	2.381	0.156	3.969	0.031	0.794	50
BSP-104-192	0.104	2.642	0.192	4.877	0.044	2.642	50
BSP-125-188	0.125	3.175	0.188	4.763	0.031	0.794	50
BSP-125-250	0.125	3.175	0.250	6.350	0.063	1.588	50
BSP-132-183	0.132	3.353	0.183	4.648	0.026	0.660	50
BSP-156-219	0.156	3.969	0.219	5.556	0.031	0.794	50
BSP-188-250	0.188	4.763	0.250	6.350	0.031	0.794	50
BSP-188-313	0.188	4.763	0.313	7.938	0.063	1.588	50
BSP-188-375	0.188	4.763	0.375	9.525	0.094	2.381	50
BSP-188-438	0.188	4.763	0.438	11.113	0.125	3.175	50
BSP-250-313	0.250	6.350	0.313	7.938	0.031	0.794	50
BSP-250-375	0.250	6.350	0.375	9.525	0.063	1.588	50
BSP-250-438	0.250	6.350	0.438	11.113	0.094	2.381	50
BSP-250-500	0.250	6.350	0.500	12.700	0.125	3.175	50
BSP-313-438	0.313	7.938	0.438	11.113	0.063	1.588	50
BSP-313-500	0.313	7.938	0.500	12.700	0.094	2.381	50
BSP-313-563	0.313	7.938	0.563	14.300	0.125	3.175	50
BSP-375-500	0.375	9.525	0.500	12.700	0.063	1.588	50
BSP-375-563	0.375	9.525	0.563	14.288	0.094	2.381	50
BSP-375-625	0.375	9.525	0.625	15.875	0.125	3.175	50
BSP-500-625	0.500	12.700	0.625	15.875	0.063	1.588	50
BSP-500-688	0.500	12.700	0.688	17.463	0.094	2.381	25
BSP-500-750	0.500	12.700	0.750	19.050	0.125	3.175	25
BSP-625-875	0.625	15.875	0.875	22.225	0.125	3.175	25
BSP-750-1000	0.750	19.050	1.000	25.400	0.125	3.175	10
BSP-1000-1250	1.000	25.400	1.250	31.750	0.125	3.175	10

## BIO-SIL® PRECISION TUBING TYPICAL PHYSICAL PROPERTIES\*

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15 sec.	D2240	53
Tensile Strength, psi (MPa)	D412	1,500 (10.34)
Ultimate Elongation, %	D412	750
Modulus at 100% Elongation, psi (MPa)	D412	230 (1.59)
Tear Strength, ppi (kN/m)	D1004	190 (0.02)

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

## BIO-SIL® PRECISION TUBING CHARACTERISTICS

Bio-Sil Precision has met the following test requirements:

- Plastic Class VI, as described in USP <88> (2022)

## BIO-SIL® PRECISION TUBING STERILIZATION METHODS

Physical properties are not significantly impacted by the following sterilization methods:

- Autoclavable (steam 30 min at 15 psi, 250°F/121°C)
- EtO (Ethylene Oxide)
- Radiation (50 kGy/ 5.0 Mrad)

NOTE: The information provided pertains only to product manufactured at the Saint-Gobain Taunton, Massachusetts facility. Saint-Gobain Performance Plastics Corporation's Life Science ("Saint-Gobain") products that are used as components in the manufacture of any Medical Devices (as defined by the FDA) are sold by Saint-Gobain only and exclusively to Medical Device manufacturers for use in the manufacture, assembly or distribution of their medical devices. Medical Device manufacturers, to whom Saint-Gobain sells components or for whom Saint-Gobain acts as a subcontractor for finished products, are solely responsible for determining whether their finished products are a medical device and complying with the appropriate certifications and registrations.

This document is intended to provide information about the product to enable you to consider whether generally the Product meets your application need and is not intended to provide product specification. This document should not be considered a Product warranty or guaranty. To the extent this document mentions any tests done by Saint-Gobain, such tests are done under controlled laboratory circumstances and hence other factors in your use and application may impact such values.

Compass Technology® is a trademark and Bio-Sil® is a registered trademark of Saint-Gobain Performance Plastics.

© 2025 Saint-Gobain Performance Plastics | FLS-5169-0725-LSMC



SAINT-GOBAIN MEDICAL  
[medical.saint-gobain.com](http://medical.saint-gobain.com)

