

TYGON®

S-54-HL Medical Tubing



Medical Products

A Stiffer Version of Formulation S-50-HL for Medical Applications

Features/Benefits

- Meets USP Class VI criteria
- Compatible with blood
- Clear, with a glass-smooth inner bore
- Reduced flexibility for suction applications

Typical Applications

- Catheters
- Intravenous or intra-arterial infusion

TYGON® S-54-HL Medical Tubing

Introduced in 1964, TYGON® S-54-HL tubing is a variation of S-50-HL that has been stiffened to reduce kinking problems experienced in certain applications, such as draining blood from the body to a perfusion reservoir.

Characteristics

TYGON® S-54-HL is available in five extremely small sizes for use in catheters, intravenous or intra-arterial infusion and other surgical and hospital uses. It is stiff enough for easy handling, yet soft enough to reduce problems of puncturing.

Since TYGON® S-54-HL is thermoplastic in nature, it can be fabricated into cannulas or protective sheath products using thermoforming and flaring techniques.

Biocompatibility

As with TYGON® S-50-HL, an extensive evaluation program assures that TYGON S-54-HL is qualified to meet or exceed Class VI criteria. A Class VI rating means that the formulation has passed the Class VI test protocol listed in the U.S. Pharmacopeia.

TYGON® S-54-HL is non-toxic, non-pyrogenic, odorless and non-hemolytic. Its smooth, dense bore prevents build-up and provides outstanding flow characteristics.

TYGON® S-54-HL Inventoried Sizes

Part Number	Inside Diameter		Outside Diameter		Wall Thickness		Coil Length	Needle Gauge
	Inches	mm	Inches	mm	Inches	mm	Feet	
AAQ04091	.010	.25	.030	.76	.010	.25	500	30
AAQ04103	.020	.51	.060	1.52	.020	.51	500	23
AAQ04119	.030	.76	.090	2.29	.030	.76	500	20 - 21
AAQ04127	.040	1.02	.070	1.78	.015	.38	500	18 - 20
AAQ04133	.050	1.27	.090	2.29	.020	.51	500	17 - 18

Standard Sizes

Tubing I.D. (Inches)	.050	.040	.030	.020	.010
Tubing O.D. (Inches)	.090	.070	.090	.060	.030
Needle Gauge*	18	19	21	23	30
French Size	7	6	7	5	3

* Needle fits into tubing.

Sterilization Methods

Autoclavable	Yes
Gas	Yes
Radiation	Yes (2.5 MRad)

TYGON® S-54-HL Typical Physical Properties

Property	ASTM Method	Value or Rating
Color	—	Crystal Clear
Durometer Hardness, Shore A	D2240	80
Tensile Strength, psi	D412	2,700
Low Temperature Range	D746	Flexible at 10°F Brittle at -25°F
High Temperature Range	—	—
Dry Heat	—	200°F
Steam Heat (Autoclave)	—	30 min. at 15 psi
Elongation, %	D412	320
Odor	—	None
Taste	—	None
Toxicity	—	Non-toxic

When tested as tubing, values may vary depending on the cross-sectional area tested.

TYGON® tubing is not intended for use as an implant material.

TYGON® is a registered trademark.



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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.

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