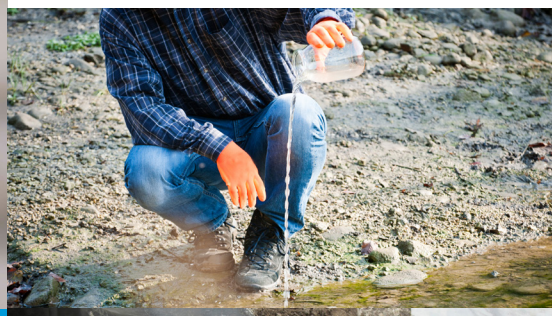
TYGON®
Excellence By Design



Tygon® SPT-60 L

High Precision Tubing for Automatic Water Sampling Equipment

Water is vitally important to every aspect of life. We have a vast network of branching rivers, swamps, lakes, etc. and each body of water can contain dramatically different levels of pollution. Measuring water quality is not an easy task, especially as increasing environmental concerns and regulations have heightened the need for increased diligence and tighter restrictions on water quality. Scientists are continuously testing to determine what effects contamination is having on receiving waters and their associated aquatic life. Peristaltic pumps are often employed as samplers, in order to prevent cross-contamination, as the only part of the pump to come in contact with the water is the interior of the tubing itself. Tygon® SPT-60 L tubing was specifically designed for automatic water samplers, offering sample integrity along with accurate dosing and performance at high lift.

Accurate and Repeatable Dosing

Water samplers require repeatable pump control for accurate dosing. The sampler needs to be capable of collecting a series of samples, on a times and/or flow proportional basis. In order to meet certain performance standards, the average velocity of the sample as it passes through the line during the event should be less than 0.5 ms-l and the mean error of the sample volume cannot be greater than 5% of the set volume over the tested range for sampling head.

Graph 1 on page 2 shows Tygon® SPT-60 L tubing's outstanding volume stability during pumping, which remains extremely consistent throughout its entire product life.

Performance at High Lift

A unique feature of peristaltic pumps is their ability to provide high suction lift. Most other metering pumps can only dry lift a few feet, requiring a flooded suction. With its exceptional dimensional stability and surface smoothness, Tygon® SPT-60 L tubing enables peristaltic pumps to have a superior suction capability of up to 29 feet, eliminating the need for a flooded suction and providing added flexibility during installation.

Sample Integrity

During the water sampling process, the tubing has the potential to impact the characteristics of the water being transferred and affect the chemical composition of the sample. This ultimately affects how representative the sample is of the water being analyzed. Thus, it is extremely important that the tubing does not leach or absorb any chemicals, which Tygon® SPT-60 L tubing demonstrates in Graph 2 on page 2.

Tygon® SPT-60 L tubing was precision designed to provide a coveted combination of chemical resistance, flexibility and reliability, thus providing water sampling equipment manufacturers with the ideal tubing for monitoring water quality.

Features and Benefits

- Accurate and repeatable dosing
- Sample integrity
- Performance at high lift

From Saint-Gobain, the multi-material, application experts offering optimized purity, ease-of-use and pump performance.

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Tygon® SPT-60 L

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Tygon® SPT-60 L

Part Number	ID (in.)	OD (in.)	Wall Thickness (in.)
TYG60L01	1/32	3/32	1/32
TYG60L02	1/16	1/8	1/32
TYG60L03	1/16	3/16	1/16
TYG60L04	1/8	3/16	1/32
TYG60L05	1/8	1/4	1/16
TYG60L06	3/16	1/4	1/32
TYG60L07	3/16	5/16	1/16
TYG60L08	3/16	3/8	3/32
TYG60L09	3/16	7/16	1/8
TYG60L10	1/4	5/16	1/32
TYG60L11	1/4	3/8	1/16
TYG60L12	1/4	7/16	3/32
TYG60L13	1/4	1/2	1/8
TYG60L14	5/16	7/16	1/16
TYG60L15	5/16	1/2	3/32
TYG60L16	3/8	1/2	1/16
TYG60L17	3/8	9/16	3/32
TYG60L18	3/8	5/8	1/8
TYG60L19	7/16	5/8	3/32
TYG60L20	1/2	5/8	1/16
TYG60L21	1/2	3/4	1/8
TYG60L22	5/8	7/8	1/8
TYG60L23	3/4	1.00	1/8

Typical Physical Properties

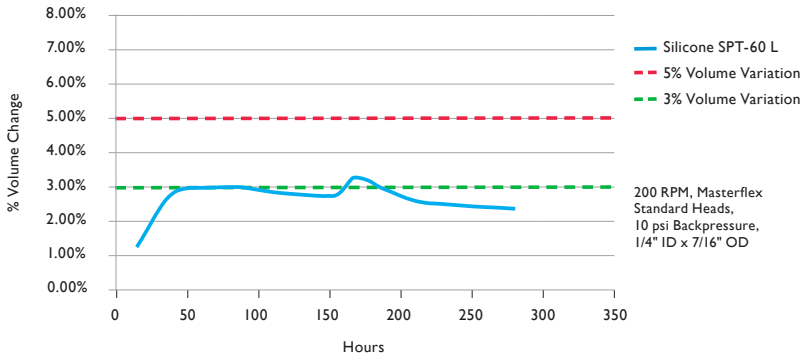
Property	Limits	References*
Appearance	Translucent	VISUAL
Specific Gravity	1.09 - 1.15	SOP 144
Durometer Hardness (Shore A)	55 - 65	SOP 114
Tensile Strength (psi)	900 MIN	SOP 93
Elongation (%)	300 MIN	SOP 93
Tear. Die B (ppi)	150 MIN	SOP 93
Temperature Range Max. Recommended Operating Temp (°F)	-75 to 350 continuous -75 to 400 intermittent	

* Referenced SOPs are based on ASTM Test Methods.

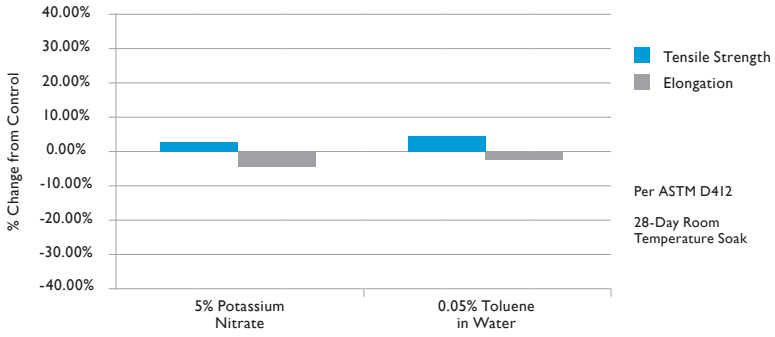
Test conditions: using a .075" ASTM test slab
Press cure: 10 minutes at 250°F
Post cure: 2 hours at 385°F

Note: These specifications are based on testing using an ASTM test slab. Physical properties of finished parts may vary slightly from these results.

Graph 1
Volume Stability During Pumping



Graph 2
Tygon® SPT-60 L Chemical Resistance



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.

TYGON® SPT-60 L TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.

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