

# Tygon<sup>®</sup> III Tubing

## SMOOTH BORE SILICONE DAIRY TUBING

The inner surface of Tygon<sup>®</sup> III silicone dairy tubing is designed to reduce the risk of particle build-up from butterfat, milkstones and milksoil. Preventing this build-up can significantly reduce the possibility of bacterial growth within milk transport lines, even during repeated use. The smooth bore of Tygon<sup>®</sup> III tubing may help to prevent residue build-up, aiding in complete cleaning and sterilization.

### The Mark of Quality

Every foot of Tygon<sup>®</sup> III tubing has been embedded with a trademark blue stripe within the tubing walls. This embedded blue stripe is your assurance of receiving genuine Tygon<sup>®</sup> III tubing, the worlds' finest raw milk tubing produced specifically for the dairy industry.

### Unequalled Durability for Optimized Performance

Manufactured in a climate-controlled environment, this flexible tubing is ozone- and UV light-resistant and can withstand continuous temperature extremes of -85°F (-65°C) to 320°F (160°C). Tygon<sup>®</sup> III tubing can also be used with full vacuum (29.9 inches of mercury) at up to 320°F (160°C) without tubing wall collapse.

### Typical Applications

- Raw milk transport lines



### Features and Benefits

- Consistently smooth inner bore reduces potential for particle entrapment
- Withstands repeated cleaning cycles
- Excellent flexibility even at low temperatures -85°F (-65°C) to 320°F (160°C)
- Taste and odor free
- Highly translucent, permits visual inspection of milk flow
- Complete inventory of standard sizes

### Regulatory Compliance

- FDA
- 3-A
- NSF<sup>®</sup>-51



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Part Number	I.D. (in.)	O.D. (in.)	Wall Thickness (in.)	Length (feet)	Max. Working Pressure at 73°F (23°C) (psi)*	Burst Pressure 73°F (23°C) (psi)*	Minimum Bend Radius (in.)	Vacuum Rating In. of Mercury at 320°F (160°C)
ASH02043	9/16	15/16	3/16	100	28	112	1-1/4	29.9
ASH02048	5/8	1	3/16	100	25	100	1-5/8	29.9
ASH02055	3/4	1-1/8	3/16	100	18	72	2-1/4	29.9
ASH02061	7/8	1-3/8	1/4	100	22	88	2-1/2	29.9
ASH02065	1	1-1/2	1/4	100	20	80	2-3/4	29.9

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

## Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15 Sec	D2240-02	71
Color	-	Translucent
Tensile Strength, psi (MPa)	D412-98	1,200 (8.3)
Ultimate Elongation, %	D412-98	300
Tear Resistance, lb-f/in. (kN/m)	D624-00 Die B	130 (22.8)
Specific Gravity	D792-00	1.21
Water Absorption, % 24 hrs. @ 23°C	D570-98	0.12
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs. % @ 347°F (175°C) for 22 hrs.	D395-01 Method B	13 35
Brittleness by Impact, °F (°C)	D746-98	-112 (-80)
Maximum Recommended Operating Temp., °F (°C)	-	400 (204)
Dielectric Strength, v/mil (kV/mm)	D149-97	450 (17.7)
Tensile Modulus, @ 200% Elongation, psi (MPa)	D412-98	650 (4.5)

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<sup>®</sup> III TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.**

Unless otherwise noted, all tests were conducted at room temperature 73°F. Values shown were determined on 0.075" thick extruded strip, 0.075" thick molded ASTM plaques or molded ASTM durometer buttons. Size of tubing tested is 1/8" I.D. x 1/4" O.D.



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NOTE: The data and details given in this document are correct and up to date. This document is intended to provide information about the product and possible applications. This document is not the product specification and does not provide specific features, nor does it guarantee product performance in specific applications. Saint-Gobain cannot anticipate or control the conditions of the field and for this reason strongly recommends that practical tests are conducted to ensure that the product meets the requirements of a specific application.

Tygon<sup>®</sup> is a registered trademark of Saint-Gobain Performance Plastics Corporation.