

Tygon[®] E-65-F Tubing

TASTE AND ODOR FREE, LONG-LIFE TUBING FOR FOOD AND BEVERAGE DISPENSING

Formulated to withstand a temperature range from -112°F to 275°F, Tygon[®] Food E-65-F tubing will not crack or deteriorate when used in demanding food and beverage applications. Extremely flexible, it resists kinks and retains its shape making installation quick and easy. Its excellent flexural fatigue resistance makes it the absolute best choice for use in peristaltic pumps found in dispensing equipment.

Sensory Profile: Taste and Odor Free

Tygon[®] Food E-65-F tubing was evaluated by an independent lab* in a blind taste test. The results support that this tubing can be referred to as taste and odor free for applications using milk, similar dairy products, and cola syrup.

Excellent Chemical Resistance

Tygon[®] Food E-65-F tubing provides resistance to many food products, including those containing vegetable oils. It has excellent acid, alkali, and cleaner solution resistance, and is compatible with numerous oxidizing agents such as peroxide, hypochlorite and ozone. For the complete listing of common chemicals and their relative effect on Tygon[®] Food E-65-F tubing, please refer to www.ics.saint-gobain.com.

Typical Dispensing Applications

- Bag-in-box juice
- Frozen yogurt
- Soft-serve ice cream
- Gelato

*Tufts University Sensory and Science Center, February 2018



Features and Benefits

- Taste and odor free
- Long flex life in peristaltic pumps
- Temperature resistant from -112°F to 275°F
- Compatible with milk-based products, frozen yogurt, and soft-serve ice cream
- Chemically compatible with a wide range of cleaners and disinfectants
- Withstands pasteurization temperatures

Regulatory Compliance

- NSF-51
- FDA
- Regulation (EC) No 1935/2004, (EU) 10/2011



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| Part Number | ID | OD | Wall Thickness | Length | Min. Bend Radius | Vacuum Rating at 73°F | Max. Working Pressure 73°F | Max Working Pressure @180°F |
|-------------|-------------|--------------|----------------|------------|------------------|-----------------------|----------------------------|-----------------------------|
| | in (mm) | in (mm) | in (mm) | ft (m) | in (mm) | inHg (mmHg) | psi (bar)* | psi (bar)* |
| AND00003 | 1/16 (1.60) | 3/16 (4.76) | 1/16 (1.60) | 50 (15.24) | 3/16 (4.76) | 29.9 (760) | 32 (2.20) | 19 (1.31) |
| AND00007 | 1/8 (3.17) | 1/4 (6.35) | 1/16 (1.60) | 50 (15.24) | 5/8 (15.88) | 29.9 (760) | 19 (1.31) | 11 (0.76) |
| AND00012 | 3/16 (4.76) | 5/16 (7.94) | 1/16 (1.60) | 50 (15.24) | 1-1/8 (28.57) | 29.9 (760) | 15 (1.03) | 8 (0.55) |
| AND00017 | 1/4 (6.35) | 3/8 (9.53) | 1/16 (1.60) | 50 (15.24) | 1 (25.4) | 29.9 (760) | 13 (0.90) | 8 (0.55) |
| AND00019 | 1/4 (6.35) | 1/2 (12.70) | 1/8 (3.17) | 50 (15.24) | 5/8 (15.88) | 29.9 (760) | 19 (1.31) | 11 (0.76) |
| AND00022 | 5/16 (7.94) | 7/16 (11.11) | 1/16 (1.60) | 50 (15.24) | 2-1/2 (68.50) | 29.9 (760) | 11 (0.76) | 6 (0.41) |
| AND00027 | 3/8 (9.52) | 1/2 (12.70) | 1/16 (1.60) | 50 (15.24) | 3-1/4 (82.55) | 20.0 (508) | 10 (0.69) | 5 (0.34) |
| AND00029 | 3/8 (9.53) | 5/8 (15.88) | 1/8 (3.18) | 50 (15.24) | 1-7/8 (47.63) | 25.0 (635) | 11 (0.76) | 5 (0.34) |
| AND00038 | 1/2 (12.70) | 3/4 (19.05) | 1/8 (3.17) | 50 (15.24) | 1-3/4 (44.45) | 29.9 (760) | 13 (0.90) | 6 (0.41) |
| AND00046 | 5/8 (15.87) | 7/8 (22.22) | 1/8 (3.17) | 50 (15.24) | 2-1/2 (68.50) | 29.9 (760) | 11 (0.76) | 6 (0.41) |
| AND00053 | 3/4 (19.05) | 1 (25.40) | 1/8 (3.18) | 50 (15.24) | 3-3/8 (85.73) | 25.0 (635) | 10 (0.69) | 6 (0.41) |

*Working pressures are calculated at a 1:5 ratio relative to burst pressure using ASTM D1599

Typical Physical Properties

| Property | ASTM Method | Value or Rating |
|---|-------------|-----------------|
| Durometer Hardness, Shore A, 15 s | D2240 | 65 |
| Color | - | Opaque White |
| Tear Resistance, lb-ft/in | D1004 | 170 |
| Specific Gravity | D792 | 0.89 |
| Water Absorption, % at 73°F (23°C) for 24 hrs | D570 | 1.5 |
| Compression Set Constant Deflection, % at 158°F (70°C) for 22 hrs | D395 | 36 |
| Maximum Recommended Operating Temperature, °F (°C) | - | 275 (135) |
| Low Temp Flexibility °F (°C) | D380 | -112 (-80) |

Unless otherwise noted, all tests were conducted at room temperature 73°F (23°C). Values shown were determined on 0.075 in (1.905 mm) thick extruded strip or 0.075 in (1.905 mm) thick molded ASTM plaques or molded ASTM durometer buttons. Size of tubing tested is 1/8 in ID x 1/4 in OD.

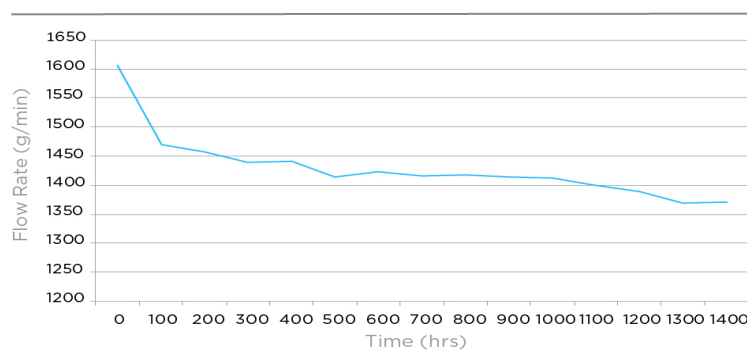
The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the tubing's ability to withstand pressure, including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the tubing for use.

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Peristaltic Pump Tubing Life* Tygon® E-65-F Tubing



Test conditions: 73+°F at 50% relative humidity, 600 rpm, 0 psi

Testing was stopped at 1400 hrs; the tubing was still functioning and maintained flow rate stability

* 11/29/17 Corrosion Testing Laboratories Inc.
CTL REF#33584

www.ics.saint-gobain.com



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.

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