

Tygon® SPT-3350

Silicone Tubing for Food and Beverage Transfer

The inner surface of Tygon® SPT-3350 silicone tubing has been designed to reduce the risk of particle entrapment and microscopic build-up during fluid transfer. In-house analysis of the inner surface of Tygon® SPT-3350 silicone tubing compared to other silicone tubing shows that it is up to three times smoother.

A smoother fluid path also helps to facilitate complete sanitation of a fluid transfer system. Even in repeat use applications, Tygon® SPT-3350 silicone tubing may prevent residue build-up, aiding in complete cleaning and sterilization.

Additionally, the smooth inner surface of the Tygon® SPT-3350 silicone tubing improves fluid flow characteristics by reducing surface area.

Lower Extractable

Tygon® SPT-3350 silicone tubing is produced from a platinum curing process to meet the most demanding requirements of food and beverage sanitary standards.

In-house extractability tests have shown that Tygon® SPT-3350 silicone tubing has a low extractable content. Lower extractable help to maintain the integrity of the transported food and beverage media.

Tygon® SPT-3350 tubing meets 3-A Sanitary Standard No. 18-01, FDA 21 CFR 175.300 and NSF 51 certification. Tygon® SPT-3350 silicone tubing has a Master File with the U.S. Food and Drug Administration.



Features and Benefits

- Ultra-smooth inner bore reduces potential for particle entrapment
- Minimal extractable help maintain fluid integrity
- Excellent fluid flow characteristics
- Complete inventory of standard sizes available, including metric sizes

Typical Applications

- Food and beverage dispensing

Regulatory Compliance

- 3-A Sanitary Standard No. 18-01
- FDA 21 CFR 175.300
- NSF 51 certification

Tygon® SPT-3350

| Part Number | ID | OD | Wall | Length | Min. Bend Radius | Max. Working Pressure | | Vacuum Rating | |
|-------------|-------|-------|-------|--------|------------------|-----------------------|--------------|---------------|---------------|
| | (in.) | (in.) | (in.) | (ft.) | (in.) | 73°F (psi)* | 320°F (psi)* | inHg at 73°F | inHg at 320°F |
| ABW01NSF | 1/32 | 3/32 | 1/32 | 50 | 1/8 | 22 | 21 | 29.9 | 29.9 |
| ABW02NSF | 1/16 | 1/8 | 1/32 | 50 | 1/4 | 14 | 13 | 29.9 | 29.9 |
| ABW03NSF | 1/16 | 3/16 | 1/16 | 50 | 1/4 | 22 | 21 | 29.9 | 29.9 |
| ABW04NSF | 3/32 | 5/32 | 1/32 | 50 | 1/4 | 11 | 10 | 29.9 | 29.9 |
| ABW05NSF | 3/32 | 7/32 | 1/16 | 50 | 1/4 | 18 | 16 | 29.9 | 29.9 |
| ABW06NSF | 1/8 | 3/16 | 1/32 | 50 | 3/8 | 9 | 8 | 20.0 | 15.0 |
| ABW07NSF | 1/8 | 1/4 | 1/16 | 50 | 1/2 | 14 | 13 | 29.9 | 29.9 |
| ABW09NSF | 5/32 | 7/32 | 1/32 | 50 | 3/4 | 7 | 6 | 10.0 | 10.0 |
| ABW11NSF | 3/16 | 1/4 | 1/32 | 50 | 1 | 7 | 6 | 5.0 | 5.0 |
| ABW12NSF | 3/16 | 5/16 | 1/16 | 50 | 1/2 | 11 | 10 | 25.0 | 25.0 |
| ABW13NSF | 3/16 | 3/8 | 3/32 | 50 | 3/8 | 14 | 13 | 29.9 | 29.9 |
| ABW14NSF | 3/16 | 7/16 | 1/8 | 50 | 3/8 | 18 | 16 | 29.9 | 29.9 |
| ABW16NSF | 1/4 | 5/16 | 1/32 | 50 | 1-1/2 | 5 | 4 | 1.0 | 1.0 |
| ABW17NSF | 1/4 | 3/8 | 1/16 | 50 | 3/4 | 9 | 8 | 15.0 | 15.0 |
| ABW18NSF | 1/4 | 7/16 | 3/32 | 50 | 5/8 | 12 | 11 | 29.9 | 29.9 |
| ABW19NSF | 1/4 | 1/2 | 1/8 | 50 | 5/8 | 14 | 13 | 29.9 | 29.9 |
| ABW22NSF | 5/16 | 7/16 | 1/16 | 50 | 1-1/4 | 7 | 6 | 5.0 | 5.0 |
| ABW23NSF | 5/16 | 1/2 | 3/32 | 50 | 5/8 | 10 | 9 | 20.0 | 20.0 |
| ABW27NSF | 3/8 | 1/2 | 1/16 | 50 | 1-1/2 | 9 | 8 | 5.0 | 5.0 |
| ABW28NSF | 3/8 | 9/16 | 3/32 | 50 | 1 | 11 | 10 | 20.0 | 15.0 |
| ABW29NSF | 3/8 | 5/8 | 1/8 | 50 | 1 | 12 | 11 | 29.9 | 29.9 |
| ABW32NSF | 7/16 | 9/16 | 1/16 | 50 | 1-1/2 | 4 | 3 | 2.0 | 2.0 |
| ABW33NSF | 7/16 | 5/8 | 3/32 | 50 | 1-3/4 | 8 | 7 | 10.0 | 10.0 |
| ABW36NSF | 1/2 | 5/8 | 1/16 | 50 | 3 | 5 | 4 | 1.0 | 1.0 |
| ABW37NSF | 1/2 | 11/16 | 3/32 | 50 | 1-3/4 | 7 | 6 | 5.0 | 5.0 |
| ABW38NSF | 1/2 | 3/4 | 1/8 | 50 | 1-1/2 | 9 | 8 | 15.0 | 15.0 |
| ABW45NSF | 5/8 | 13/16 | 3/32 | 50 | 3 | 6 | 5 | 5.0 | 0.0 |
| ABW46NSF | 5/8 | 7/8 | 1/8 | 50 | 2-1/2 | 7 | 6 | 10.0 | 10.0 |
| ABW53NSF | 3/4 | 1 | 1/8 | 50 | 2-1/2 | 7 | 6 | 1.0 | 1.0 |
| ABW62NSF | 1 | 1-1/4 | 1/8 | 50 | 5 | 5 | 4 | 0.0 | 0.0 |
| ABW69NSF | 1-1/4 | 1-1/2 | 1/8 | 50 | 6 | 5 | 4 | 0.0 | 0.0 |
| ABW74NSF | 1-1/2 | 2 | 1/4 | 50 | 7 | 6 | 5 | 1.0 | 1.0 |

*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, 15s | D2240 | 50 |
| Color | — | Translucent |
| Tensile Strength, psi (MPa) | D412 | 1,450 (10.0) |
| Ultimate Elongation, % | D412 | 770 |
| Tear Resistance, lb-f/in (kN/m) | D624 Die B | 200 (35.0) |
| Specific Gravity | D792 | 1.14 |
| Water Absorption, % at 73°F (23°C) for 24 hrs. | D570 | 0.11 |
| Compression Set Constant Deflection, % at 158°F (70°C) for 22 hrs. % at 347°F (175°C) for 22 hrs. | D395-03 Method B | 7 35 |
| Brittleness by Impact Temp., °F (°C) | D746 | -112 (-80) |
| Maximum Recommended Operating Temp., °F (°C) | — | 400 (204) |
| Dielectric Strength, v/mil (kV/mm) | D149 | 480 (19) |
| Tensile Modulus, at 200% Elongation, psi (MPa) | D412 | 280 (1.9) |

Unless otherwise noted, all tests were conducted at room temperature 73°F (23°C). Values shown were determined on 0.075" (1,905 mm) thick extruded strip or 0.075" (1,905 mm) thick molded ASTM plaques or molded ASTM durometer buttons. Size of tubing tested is 1/8" ID x 1/4" OD.

Sterilization Methods

Autoclavable – Steam 30 minutes at 15 psi (250°F)

Gas – Ethylene Oxide

Radiation – up to 5.0 Mrad

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.

TYGON® SPT-3350 TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.



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