



# Tygon S3™ B-44-5X IB

## Reinforced, Flexible Tubing for Food and Beverage Dispensing

Safe to be in contact with food, all layers of Tygon B-44-5X IB tubing are compliant with FDA and EU food contact regulations.

Tygon S3 B-44-5X IB tubing is designed specifically for food and beverage dispensing applications involving elevated pressure. Tygon pressure tubing is clear, lightweight, flexible, smooth, has a non-porous bore to inhibit particle entrapment, outstanding resistance to harsh alkaline cleaners and is unaffected by commonly used sanitizers. The added reinforcement withstands up to four times the pressure of non-reinforced tubing.

### Flexibility for Every Twist and Turn

Lightweight and easy to handle, Tygon S3 B-44-5X IB tubing goes into service quickly. It readily bends around corners and obstructions, requiring minimal couplings and fittings. Its flexibility can save up to 30% the footage and much of the labor required to install rigid stainless steel, glass tubing or piping.

### Reduces the Risk of Bacterial Contamination

Tygon S3 B-44-5X IB tubing's smooth non-porous inner bore resists particle entrapment and resultant bacterial growth. Its excellent non-wetting properties facilitate complete drainage and increase the overall effectiveness of cleaning, making it the ideal choice in food, beverage, dairy, and other bacterial-sensitive applications. Virtually taste and odor free.

### Ideal for Use with ReSeal® Reusable Sanitary Fittings

By combining Tygon S3 B-44-5X IB tubing with ReSeal® Reusable Fittings, complete assemblies can be constructed, providing a contamination-free environment that maintains the purity of fluids being transferred. ReSeal assemblies are easy to install and can increase manufacturing efficiency by providing a fluid path that is able to be repeatedly sterilized using many conventional clean-in-place methods.

### Typical Applications

- Water lines for beverage dispensing equipment
- Ice cream dispensing equipment
- Frozen beverages dispensing machines (smoothies, shakes, slushies)



### Features and Benefits

- All layers compliant with FDA and EU food contact regulations
- Handles four times the pressure of non-reinforced tubing
- Improved flexibility at sub-zero temperatures
- Smooth, non-porous bore resists particle entrapment
- Clear wall enables visualization of fluid flow
- Connects easily to ReSeal® Sanitary Fittings

### Regulatory Compliance

- NSF-51
- NSF-61
- 3-A Sanitary Standard 20-27 (Multiple Use Plastic Materials)
- Compliant with applicable FDA Food Additive Regulations (21 CFR 170-199)\*
- Compliant with EU Food Contact Regulation (EU) No 10/2011\*

\* Use restrictions and limitations may apply.

## Tygon S3 B-44-5X IB

| Part Number | ID    |       | OD    |       | Wall Thickness |      | Length |      | Min. Bend Radius |      | Max. Working Pressure |            |             |            | Vacuum Rating |             |              |             |
|-------------|-------|-------|-------|-------|----------------|------|--------|------|------------------|------|-----------------------|------------|-------------|------------|---------------|-------------|--------------|-------------|
|             | (in)  | (mm)  | (in)  | (mm)  | (in)           | (mm) | (ft)   | (m)  | (in)             | (mm) | 73°F (psi)            | 23°C (bar) | 160°F (psi) | 71°C (bar) | 73°F (inHg)   | 23°C (mmHg) | 160°F (inHg) | 71°C (mmHg) |
| AMH00018    | 1/4   | 6.35  | 7/16  | 11.11 | 3/32           | 2.38 | 50     | 15.2 | 1-1/2            | 38   | 230                   | 15.9       | 90          | 6.2        | 29.9          | 759         | 25.0         | 635         |
| AMH00029    | 3/8   | 9.525 | 5/8   | 15.88 | 1/8            | 3.18 | 50     | 15.2 | 1-1/8            | 29   | 275                   | 22.1       | 150         | 10.3       | 29.9          | 759         | 20.0         | 508         |
| AMH00038    | 1/2   | 12.7  | 3/4   | 19.05 | 1/8            | 3.18 | 50     | 15.2 | 1-3/4            | 45   | 200                   | 13.8       | 95          | 6.6        | 29.9          | 759         | 10.0         | 254         |
| AMH00046    | 5/8   | 15.88 | 7/8   | 22.23 | 1/8            | 3.18 | 50     | 15.2 | 2-3/8            | 60   | 165                   | 11.4       | 105         | 7.2        | 25.0          | 635         | 10.0         | 254         |
| AMH00053    | 3/4   | 19.05 | 1     | 25.4  | 1/8            | 3.18 | 50     | 15.2 | 3-1/4            | 83   | 145                   | 10         | 85          | 5.9        | 20.0          | 508         | 5.0          | 127         |
| AMH00064    | 1     | 25.4  | 1-3/8 | 34.96 | 3/16           | 4.76 | 50     | 15.2 | 3-3/4            | 95   | 100                   | 6.9        | 60          | 4.1        | 20.0          | 508         | 5.0          | 127         |
| AMH00070    | 1-1/4 | 31.75 | 1-5/8 | 41.28 | 3/16           | 4.76 | 50     | 15.2 | 5-1/2            | 140  | 85                    | 5.9        | 55          | 3.8        | 10.0          | 254         | 3.0          | 76.2        |
| AMH00074    | 1-1/2 | 38.1  | 2     | 50.8  | 1/4            | 6.35 | 50     | 15.2 | 5-7/8            | 149  | 75                    | 5.2        | 45          | 3.1        | 10.0          | 254         | 2.0          | 50.8        |
| AMH05074    | 1-1/2 | 38.1  | 2     | 50.8  | 1/4            | 6.35 | 20     | 6.1  | 5-7/8            | 149  | 75                    | 5.2        | 45          | 3.1        | 10.0          | 254         | 2.0          | 50.8        |
| AMH05079    | 2     | 50.8  | 2-3/4 | 69.85 | 3/8            | 9.53 | 20     | 6.1  | 6-7/8            | 175  | 60                    | 4.1        | 40          | 2.8        | 25.0          | 635         | 10.0         | 254         |
| AMH05086    | 3     | 76.2  | 3-3/4 | 95.25 | 3/8            | 9.53 | 20     | 6.1  | 13               | 330  | 40                    | 2.8        | 25          | 1.7        | 5.0           | 254         | 1.0          | 25.4        |

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, 15s                                   | D2240         | 64              |
| Tensile Strength, psi (MPa)  | D412          | 2100 (14.5)     |
| Ultimate Elongation, %   | D412          | 350             |
| Tear Resistance, lb-f/in (kN/m)                                    | D1004         | 205 (36)        |
| Specific Gravity   | D792          | 1.21            |
| Water Absorption, % at 73°F (23°C) 24 hrs.                         | D570          | 0.29            |
| Compression Set Constant Deflection, % at 158°F (70°C) for 22 hrs. | D395 Method B | 52              |
| Maximum Recommended Operating Temp., °F (°C)                       | —             | 165 (74)        |
| Low Temp Flexibility, °F (°C)                                      | D380          | -58 (-50)       |
| Color  | Visual        | Clear           |

**NOTE ABOUT TESTING CONDITIONS:** Unless otherwise noted, all tests were conducted at room temperature (72F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons or 1/4"ID x 7/16"OD tubing.

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.



### Saint-Gobain Performance Plastics

2664 Gilchrist Road  
Akron, OH 44305  
1-800-798-1554  
Tel: (330) 798-9240  
Fax: (330) 798-6968

www.processsystems.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.

Tygon S3™ is a trademark of Saint-Gobain Performance Plastics.