

TYGON B-44-4X I.B.

The only choice for phthalate-free flexible tubing

Reinforced to provide increased pressure capability, Tygon S^{3™} B-44-4X I.B. tubing is the most flexible reinforced tubing available.

Tygon S^{3™} B-44-4X I.B. from Saint-Gobain Performance Plastics is now phthalate-free. Saint-Gobain is proud to be among the first companies to offer sustainable flexible tubing products. The bio-based Tygon S^{3™} line combines the high performance standards customers demand with an eco-friendly tubing design.

Versatility Provides the Solution to Many Applications

Tygon S^{3™} B-44-4X I.B. can be used to transport many types of fluids in applications ranging from those regulated by FDA guidelines to industrial laboratory applications involving virtually all non-solvent based chemicals.

Flexibility to Deal with the “Twists and Turns”

Lightweight and easy to handle, Tygon S^{3™} B-44-4X I.B. goes into service quickly. It readily curves around corners and obstructions, requiring a minimum of couplings and fittings. Its flexibility can save up to one-third the footage and much of the labor required to install rigid stainless steel, glass tubing or piping.

Reduces the Risk of Bacterial Contamination

Tygon S^{3™} B-44-4X I.B.'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, Tygon S^{3™} B-44-4X I.B. fully complies with FDA 175.300 criteria and the 3-A Sanitary Standards for food contact applications. It is listed under the NSF Standard 51.* Custom antimicrobial version available upon request.

Ideal for Use with ReSeal® Reusable Sanitary Fittings

By combining Tygon S^{3™} B-44-4X I.B. 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 repeatedly sterilizable using many conventional clean-in-place methods.

* The compliance status of Tygon S^{3™} B-44-4X I.B. according to the marketing region can be found on www.TygonS3.com. Please refer to the detailed document of compliance for a complete compliance information and appropriate use instruction. The complete compliance information and use instructions can be found at www.TygonS3.com.



Tygon S^{3™} 44-4X I.B. Features/Benefits

- Handles four times the pressure of non-reinforced tubing
- Smooth, non-porous bore resists particle entrapment
- Clear wall enables visualization of fluid flow
- Connects easily to ReSeal® Sanitary Fittings
- Meets FDA, 3-A and NSF criteria
- Contains no chemicals listed in California's Prop 65
- Contains no BPA or phthalates

Typical Applications

- Cosmetic production
- Food and dairy processing*
- Beverage dispensing*
- Water purification systems
- Printing equipment
- Coolant lines
- Chemical transfer
- Instrumentation and air supply

Tygon S³™ B-44-4X I.B.

Saint-Gobain Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness, in	Minimum Length, (inches)	Minimum Bend Radius, (inches)	Max. Working Pressure		Vacuum Rating In. of Mercury	
						at 73°F (psi)	at 160°F (psi)	at 73°F (psi)	at 160°F (psi)
ADA00018	1/4	7/16	3/32	50	1-1/2	250	90	29.9	29.9
ADA00029	3/8	5/8	1/8	50	1-1/8	170	90	29.9	25.0
ADA00038	1/2	3/4	1/8	50	2-1/8	200	95	29.9	10.0
ADA00046	5/8	7/8	1/8	50	2-3/8	165	105	25.0	10.0
ADA00053	3/4	1	1/8	50	3-1/4	145	85	20.0	5.0
ADA00064	1	1-3/8	3/16	50	3-3/4	100	60	20.0	5.0
ADA00070	1-1/4	1-5/8	3/16	50	5-1/2	85	55	10.0	3.0
ADA00074	1-1/2	2	1/4	50	5-7/8	75	45	10.0	2.0
ADA05074	1-1/2	2	1/4	20	5-7/8	75	45	10.0	2.0
ADA06074	1-1/2	2	1/4	10	5-7/8	75	45	10.0	2.0
ADA05079	2	2-3/4	3/8	20	6-7/8	60	40	25.0	10.0
ADA06079	2	2-3/4	3/8	10	6-7/8	60	40	25.0	10.0
ADA05086	3	3-3/4	3/8	20	13-1/4	40	25	10.0	1.0
ADA06086	3	3-3/4	3/8	10	13-1/4	40	25	10.0	1.0

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	66
Tensile Strength, psi (MPa)	D412	2,200 (15.2)
Ultimate Elongation, %	D412	390
Tear Resistance, lb-f/inch (kN/m)	D1004	250 (43.8)
Specific Gravity	D792	1.21
Water Absorption, % 24 hrs. @ 73°F (23°C)	D570	0.22
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs.	D395 Method B	59
Brittleness Temp., °F (°C)	D746	-32 (-36)
Maximum Recommended Operating Temp., °F (°C)	-	165 (74)
Tensile Stress @ 200% Elongation, psi (MPa)	-	1,379 (9.5)
Tensile Set, %	D412	57
Color	-	Clear

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 S³™ B-44-4X I.B. 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 or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.



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IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses. Laboratory and clinical tests must be conducted in accordance with applicable regulatory requirements in order to determine the safety and effectiveness for use of tubing in any particular application.

For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product to be free from defects in materials and workmanship. Our only obligation will be to replace any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risk, if any, including the risk of injury, loss or damage, direct or consequential, arising out of the use, misuse, or inability to use, this product. THIS WARRANTY IS IN LIEU OF THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. No deviation is authorized.

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