



Tygon S3™ B-44-3

Phthalate-free Flexible Tubing for Beverage Transfer

Tygon S3 B-44-3 tubing from Saint-Gobain Performance Plastics is phthalate-free. Saint-Gobain is proud to be among the first companies to offer sustainable flexible tubing products. The bio-based Tygon S3 line combines the high performance standards customers demand with an eco-friendly tubing design.

Versatile, High-Performance Tubing

Tygon S3 B-44-3 tubing is specially formulated for transferring a wide variety of beverages including soft drinks, fruit juices, flavored teas and bottled water.* In virtually all cases, Tygon S3 B-44-3 tubing will not affect the taste or odor of products transferred through it; the transferred product will also not affect the mechanical properties of the tubing (color, transparency, cracking, hardness, tackiness, weight change, and flexibility).**

B-44-3's excellent non-wetting properties facilitate complete drainage and permit simple flush-cleaning. When harsh sanitizing solutions are used, it exhibits exceptional chemical resistance and is entirely unaffected by a wide variety of cleaning solutions. Tygon S3 B-44-3's stability makes it today's best choice for beverage transfer applications.

Lightweight and Flexible

Light in weight and easy to handle, Tygon S3 B-44-3 tubing can be put into service quickly. It readily bends to accommodate abrupt corners and obstructions, requiring a minimum of couplings and fittings.

Clear as Glass

The glass-like clarity of Tygon S3 B-44-3 tubing allows the user to see product flow through it, so visual monitoring of flow is easy. This is particularly helpful in controlling or adjusting flow during processing.

Typical Applications*

- Food and Beverage transfer
- Food and Beverage dispensing

Features and Benefits

- Tubing will not affect the taste or odor of transferred products**
- Transferred product will not affect the tubing's mechanical properties (color, transparency, cracking, hardness, tackiness, weight change, and flexibility)**
- Clear as glass for easy visual monitoring of flow
- Lightweight and flexible for easy, quick installation
- Broad chemical resistance
- Non-wetting properties allow easy cleaning and complete drainage
- Contains no BPA or phthalates

Regulatory Compliance*

- Complies with applicable FDA Food Additive Regulations, NSF Standards, 3-A, Japan Food Sanitation Law # 370/1959, REACH, 1935/2004/EC and 10/2011/EU for many foods and beverages
- Does not contain chemicals listed in California's Proposition 65

Tygon S3™ B-44-3

Part Number	ID		OD		Min. Bend Radius		Max. Working Pressure		Vacuum Rating of Mercury	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	psi at 73°F	bars at 23°C	inches at 73°F	mm at 23°C
AAB00002	1/16	1,59	1/8	3,18	1/4	6,35	60	4,1	29,9	760
AAB00003	1/16	1,59	3/16	4,76	1/8	3,18	100	6,9	29,9	760
AAB00004	3/32	2,38	5/32	3,97	3/8	9,53	43	3,0	29,9	760
AAB00005	3/32	2,38	7/32	5,56	1/4	6,35	74	5,1	29,9	760
AAB00006	1/8	3,18	3/16	4,76	1/2	12,70	34	2,3	25,0	635
AAB00007	1/8	3,18	1/4	6,35	3/8	9,53	60	4,1	29,9	760
AAB00009	5/32	3,97	7/32	5,56	3/4	19,05	28	1,9	16,0	406
AAB00010	5/32	3,97	9/32	7,14	1/2	12,70	50	3,4	29,9	760
AAB00011	3/16	4,76	1/4	6,35	1	25,40	25	1,7	11,0	279
AAB00012	3/16	4,76	5/16	7,94	5/8	15,88	43	3,0	29,9	760
AAB00013	3/16	4,76	3/8	9,53	1/2	12,70	60	4,1	29,9	760
AAB00014	3/16	4,76	7/16	11,11	3/8	9,53	74	5,1	29,9	760
AAB00016	1/4	6,35	5/16	7,94	1-5/8	41,28	19	1,3	6,0	152
AAB00017	1/4	6,35	3/8	9,53	1	25,40	34	2,3	25,0	635
AAB00018	1/4	6,35	7/16	11,11	3/4	19,05	47	3,2	29,9	760
AAB00019	1/4	6,35	1/2	12,70	5/8	15,88	60	4,1	29,9	760
AAB00022	5/16	7,94	7/16	11,11	1-3/8	34,93	28	1,9	16,0	406
AAB00023	5/16	7,94	1/2	12,70	1	25,40	40	2,8	29,9	760
AAB00024	5/16	7,94	9/16	14,29	7/8	22,23	50	3,4	29,9	760
AAB00027	3/8	9,53	1/2	12,70	1-3/4	44,45	25	1,7	11,0	279
AAB00028	3/8	9,53	9/16	14,29	1-3/8	34,93	34	2,3	25,0	635
AAB00029	3/8	9,53	5/8	15,88	1-1/8	28,58	44	3,0	29,9	760
AAB00034	7/16	11,11	11/16	17,46	1-3/8	34,93	36	2,5	29,9	760
AAB00036	1/2	12,70	5/8	15,88	2-7/8	73,03	19	1,3	6,0	152
AAB00037	1/2	12,70	11/16	17,46	2-1/8	53,98	27	1,9	14,0	355
AAB00038	1/2	12,70	3/4	19,05	1-3/4	44,45	34	2,3	25,0	635
AAB00046	5/8	15,88	7/8	22,23	2-3/8	60,33	29	2,0	16,0	406
AAB00051	11/16	17,46	15/16	23,81	2-7/8	73,03	27	1,9	13,0	330
AAB00053	3/4	19,05	1	25,40	3-1/4	82,55	25	1,7	11,0	279
AAB00059	7/8	22,23	1-1/8	28,58	4-1/8	104,78	22	1,5	8,0	203
AAB00062	1	25,40	1-1/4	31,75	5-1/8	130,18	20	1,4	6,0	152
AAB00064	1	25,40	1-3/8	34,93	3-3/4	95,25	27	1,9	14,0	355
AAB00065	1	25,40	1-1/2	38,10	3	76,20	34	2,3	25,0	127
AAB00069	1-1/4	31,75	1-1/2	38,10	7-3/8	187,33	16	1,1	4,0	101
AAB00070	1-1/4	31,75	1-5/8	41,28	5-1/2	139,70	23	1,6	9,0	229
AAB00071	1-1/4	31,75	1-3/4	44,45	4-3/8	111,13	28	1,9	16,0	406
AAB00073	1-1/2	38,10	1-7/8	47,63	7-1/4	184,15	19	1,3	6,0	152
AAB00074	1-1/2	38,10	2	50,80	5-7/8	149,23	25	1,7	11,0	279
AAB00076	1-3/4	44,45	2-1/4	57,15	7-1/2	190,50	22	1,5	8,0	203
AAB00078	2	50,80	2-1/2	63,50	9-3/8	238,13	19	1,3	6,0	152
AAB05080	2	50,80	3	76,20	5-1/2	139,70	34	2,3	25,0	635
AAB05081	2-1/4	57,15	2-3/4	69,85	11-1/4	285,75	18	1,2	5,0	127

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

Tygon S3 B-44-3 is available in sizes ranging from 1,59 mm ID to 88,90 mm OD

Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15s	D2240	66
Tensile Strength, psi (MPa)	D412	2,200 (15,2)
Ultimate Elongation, %	D412	390
Tear Resistance, lb-f/in (kN/m)	D1004	250 (43,8)
Specific Gravity	D792	1,21
Water Absorption, % at 73°F (23°C) for 24 hrs.	D570	0,22
Compression Set Constant Deflection, % at 158°F (70°C) for 22 hrs.	D395 Method B	59
Brittleness by Impact Temp., °F (°C)	D746	-32 (-36)
Cold Temp. Flexibility @ 5°C increments, °F (°C)	D380	-67 (-55)
Maximum Recommended Operating Temp., °F (°C)	—	165 (74)
Tensile Stress @ 200% Elongation, psi (MPa)	D412	1,379 (9,5)
Tensile Set, at 75% Elongation	D412	57
Color	—	Clear

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.

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 S3™ B-44-3 TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.

* For complete compliance information and appropriate use instructions, please refer to the detailed document of compliance. The complete compliance information and use instructions can be found at www.TygonS3.com.

**03/09/18 Siena Development Saint-Gobain Tubing Testing Certificate.
11/29/17 Corrosion Testing Laboratories Inc.
CTL REF#33584

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