VERSILON®
Engineered Versatility

Versilon® C-544-A IB Tubing

MULTI-PURPOSE, ABRASION RESISTANT TUBING

Specially formulated from tough ether-based polyurethane resins, Versilon® C-544-A IB tubing is ideal for use in some of the most physically demanding applications. When exposed to abrasive conditions, the excellent wear properties of Versilon® C-544-A IB tubing frequently outperforms traditional rubber, plastic, and metal materials.

More flexible than many other reinforced urethane tubing, Versilon® C-544-A IB tubing can often be used in applications requiring a tight bend radius where other tubes have collapsed and failed. Versilon® C-544-A IB tubing also retains much of its unique flexibility even at temperatures as low as -100°F (-73°C). Versilon® C-544-A IB tubing meets FDA 21 CFR, 177.1680 and 177.2600 criteria for food contact applications (see more on back).

Excellent Stability

While many rubber and plastic materials exhibit resistance to certain solvents, oils, and chemicals, Versilon® C-544-A IB tubing will resist a much wider range of substances.

Plasticizer extraction leading to embrittlement is one of the most frequent causes of failure when flexible tubing is exposed to harsh chemicals. Versilon® C-544-A IB tubing is plasticizer-free and remains flexible even when cycled through temperature extremes.

Large Bore Stock Sizes Ideal for Bulk Transfer

Reinforced for elevated pressure, Versilon® C-544-A IB tubing can easily handle applications requiring large volume transfer of high viscosity fluids, pastes, and slurries. It is conveniently available from inventory in a wide variety of common sizes up to 2" inner diameter.



Features and Benefits

- Exceptional abrasion and tear resistance
- Tough braid reinforcement for elevated working pressures
- Excellent resistance to oils, greases, and fuels
- Retains flexibility in sub-zero environments

Typical Applications

- Food and cosmetic processing
- Abrasive and viscous slurry transfer
- Lubrication and degreaser dispensing
- Pellet and powder transfer
- Pneumatic sensory devices
- Instrumentation control lines
- Coolant recovery systems

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Part Number	ID	OD	Wall Thickness	Length	Min. Bend Radius	Max. Working Pressure		Vacuum Rating	
	(in.)	(in.)	(in.)	(ft.)	(in.)	73°F (psi)*	180°F (psi)*	inHg at 73°F	inHg at 180°F
AZY02008	1/8	3/8	1/8	100	1/4	420	220	29.9	29.9
AZY02014**	3/16	7/16	1/8	100	1/2	240	125	29.9	29.9
AZY02019	1/4	1/2	1/8	100	3/4	275	150	29.9	29.9
AZY02029	3/8	5/8	1/8	100	1-1/2	205	115	29.9	29.9
AZY02038	1/2	3/4	1/8	100	2	195	110	29.9	29.9
AZY02046	5/8	7/8	1/8	100	3	175	105	29.9	25.0
AZY02054	3/4	1-1/16	5/32	100	3-1/2	150	100	29.9	25.0
AZY02064	1	1-3/8	3/16	100	4-3/4	120	80	29.9	15.0
AZY00071	1-1/4	1-3/4	1/4	50	6	95	65	29.9	20.0
AZY00074	1-1/2	2	1/4	50	7-1/2	80	50	29.9	15.0
AZY00078	2	2-1/2	1/4	50	13	70	40	15.0	10.0

* Working pressures are calculated at a 1:4 ratio relative to burst pressure using ASTM D1599.
** Made to order, minimums will apply.

Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15 sec	D2240	85
Tensile Strength, psi (MPa)	D412	5,000 (34.5)
Ultimate Elongation, %	D412	400
Tear Resistance, lb-f/in. (kN/m)	D1004	350 (61.3)
Specific Gravity	D792	1.12
Water Absorption, % 24 hrs @ 23°C	D570	1.80
Compression Set Constanct Deflection, % @ 158°F (70°C) for 22 hrs	D395 Method B	19
Brittleness Temp., °F (°C)	D746	-100 (-73)
Maximum Recommended Operating Temp., °F (°C)	—	180 (82)
Dielectric Strength, v/mil (kV/mm)	D149	550 (21.6)
Tensile Stress	D412	
@ 100% Elongation, psi (MPa)		800 (5.5)
@ 300% Elongation, psi (MPa)		1,200 (8.3)
Tensile Set, %	D412	45
Color	—	Clear

Unless otherwise noted, all tests were conducted at room temperature 73°F (23°C). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

Regulatory Compliance

- Meets FDA criteria for food contact
- FDA 21 CFR, 177.1680 and 177.2600
- Meets NSF®-61 criteria for potable water contact*

*NSF® has length restrictions, determined by tubing size, for NSF®-61 applications.

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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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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