OPTUBUS Fluid Transfer Components

Versilon™ C-544-A IB

Multipurpose **A**brasion **R**esistant **T**ubing

Flexibility at **H**igh **P**ressure & **F**uel and **O**il **R**esistance

Multi-Purpose, Abrasion Resistant Tubing

Specially formulated 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 tubing, Versilon™ C-544-A IB 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 -73°C (-100°F). Versilon™ C-544-A IB tubing meets FDA 21 CFR, 177.1680 and 177.2600 criteria for food contact applications.

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

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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.

- Pellet and powder transfer
- Pneumatic sensory devices
- Instrumentation control lines
- Coolant recovery systems

Versilon™ C-544-A IB Standard Sizes

Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Max. Working Pressure* 82°C (180°F)	Vacuum Rating at 22°C (73°F)	Vacuum Rating at 82°C (180°F)
VS3,18CA9,53IB	3,18 mm (1/8")	9,53 mm (3/8")	3,18 mm (1/8")	6,4 mm	29 bar	15,1 bar	760 mmHg	760 mmHg
VS4,76CA11,11IB	4,76 mm (3/16")	11,11 mm (7/16")	3,18 mm (1/8")	12,7 mm	16,5 bar	8,6 bar	760 mmHg	760 mmHg
VS6,35CA12,7IB	6,35 mm (1/4")	12,7 mm (1/2")	3,18 mm (1/8")	19,1 mm	18,9 bar	10,3 bar	760 mmHg	760 mmHg
VS9,53CA15,88IB	9,53 mm (3/8")	15,88 mm (5/8")	3,18 mm (1/8")	38,1 mm	14,1 bar	7,9 bar	760 mmHg	760 mmHg
VS12,7CA19,05IB	12,7 mm (1/2")	19,05 mm (3/4")	3,18 mm (1/8")	50,8 mm	13,4 bar	7,5 bar	760 mmHg	760 mmHg
VS15,88CA22,23IB	15,88 mm (5/8")	22,23 mm (7/8")	3,18 mm (1/8")	76,2 mm	12 bar	7,2 bar	760 mmHg	635 mmHg
VS19,05CA26,99IB	19,05 mm (3/4")	26,99 mm (1-1/16")	3,97 mm (5/32")	88,9 mm	10,3 bar	6,8 bar	760 mmHg	635 mmHg
VS25,4CA34,93IB	25,4 mm (1")	34,93 (1-3/8")	4,76 mm (3/16")	120,7 mm	8,2 bar	5,5 bar	760 mmHg	381 mmHg
VS31,75CA44,45IB	31,75 mm (1-1/4")	44,45 mm (1-3/4")	6,35 mm (1/4")	152,4 mm	6,5 bar	4,4 bar	760 mmHg	508 mmHg
VS38,1CA50,8IB	38,1 mm (1-1/2")	50,8 mm (2")	6,35 mm (1/4")	190,5 mm	5,5 bar	3,4 bar	760 mmHg	381 mmHg
VS50,8CA63,5IB	50,8 mm (2")	63,5 mm (2-1/2")	6,35 mm (1/4")	330,2 mm	4,8 bar	2,7 bar	381 mmHg	254 mmHg

*Working pressures are calculated at a 1:4 ratio relative to burst pressure using ASTM D1599

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.

Typical Physical Properties of Versilon™ C-544-A IB Tubing

Property	ASTM Method	Value of Rating
Durometer Hardness	D2240	85° Shore A, 15s
Color	-	clear
Specific Gravity	D792	1.12
Tensile Strength	D412	34,5 MPa (5.000 psi)
Ultimate Elongation	D412	400,00%
Tear Resistance	D1004	61,3 kN/m (350 lb-f/in)
Compression Set Constant Deflection @ 70°C (158°F) for 22 hrs	D395 Method B	19,00%
Dielectric Strength	D149	21,6 kV/mm (550 v/mil)
Tensile Stress @100% Elongation @300% Elongation	D412	5,5 MPa (800 psi) 8,3 MPa (1.200 psi)
Maximum Recommended Operating Temperature	-	82° C (180°F)
Tensile Set	D412	45,00%
Brittleness Temperature	D746	-73°C (-100°F)
Water Absorption, 24 hrs. @ 23°C	D570	1,80%