OPTUBUS
Fluid Transfer Components

Versilon™ C-210-A

Multipurpose **T**ransfer **T**ubing

Abrasion- and **T**ear **R**esistance for **Fuel** and **Oil**

Exceptional Properties

The rigidly controlled manufacturing process makes Versilon™ C-210-A the flexible Tubing that has consistent tight tolerances from lot to lot. Versilon™ C-210-A clarity, high tear strenght and excellent abrasion resistance makes it ideal for many applications, including fuel and lubricant lines, pneumatic lines, abrasive product tansfer and cable jacketing. It also offers exceptional resistance to oils, greases, fuels and many other chemicals.

Versilon™ C-210-A is able to withstand rugged daily use; it resits weathering and can be safely used in temperatures ranging from -73°C (-100°F) to +93°C (+200°F).

Excellent Stability even when exposed to Oils, Greases and Fuels

While many rubber and plastic materials exhibit resistance to certain solvents, oils and chemicals, Versilon™ C-210-A Tubing will resist a much wider range of substances.

Plastizicer extraction leading to embrittlement is one of the most frequent causes o failure when flexible tubing is is exposed to harsh chemicals. Versilon™ C-210-A Tubing is Plastizicer-Free and remains flexible even when cycled through temperature extremes.

Easy and Secure Attachment to Fittings

Versilon™ C-210-A Tubing's precision tolerances and high elasticity provide the user with an easy, worry-free attachment to fittings.

Features and Benefits

- Consistently tight dimensional Tolerances
- Excellent abrasion and tear Resistance
- Excellent Resistance to Oils, Greases and Fuels
- Retains Flexibility in sub-zero Enviroments
- High Tear Resistance

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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Versilon™ C-210-A Standard Sizes

Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Max. Working Pressure* 79°C (175°F)	Vacuum Rating at 22°C (73°F)	Vacuum Rating at 79°C (175°F)
VS1,59CA3,18	1,59 mm (1/16")	3,18 mm (1/8")	0,79 mm (1/32")	4,8 mm	4,8 bar (70 psi)	2,7 bar (40 psi)	760 mmHg	760 mmHg
VS3,18CA4,76	3,18 mm (1/8")	4,76 mm (3/16")	0,79 mm (1/32")	12,7 mm	3,1 bar (45 psi)	1,7 bar (25 psi)	760 mmHg	760 mmHg
VS3,18CA6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")	7,9 mm	5,1 bar (74 psi)	3,1 bar (45 psi)	760 mmHg	760 mmHg
VS4,76CA6,35	4,76 mm (3/16")	6,35 mm (1/4")	0,79 mm (1/32")	25,4 mm	2,3 bar (34 psi)	1,3 bar (19 psi)	760 mmHg	760 mmHg
VS4,76CA7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")	15,8 mm	3,8 bar (56 psi)	2,2 bar (33 psi)	760 mmHg	760 mmHg
VS4,76CA9,53	4,76 mm (3/16")	9,53 mm (3/8")	2,38 mm (3/32")	11,1 mm	4,8 bar (70 psi)	3,0 bar (44 psi)	760 mmHg	760 mmHg
VS6,35CA7,94	6,35 mm (1/4")	7,94 mm (5/16")	0,79 mm (1/32")	39,6 mm	1,9 bar (28 psi)	0,8 bar (12 psi)	508 mmHg	127 mmHg
VS6,35CA9,53	6,35 mm (1/4")	9,53 mm (3/8")	1,59 mm (1/16")	23,8 mm	2,8 bar (42 psi)	1,7 bar (25 psi)	760 mmHg	760 mmHg
VS6,35CA11,1	6,35 mm (1/4")	11,11 mm (7/16")	2,38 mm (3/32")	17,4 mm	3,9 bar (58 psi)	1,9 bar (28 psi)	760 mmHg	760 mmHg
VS6,35CA12,7	6,35 mm (1/4")	12,7 mm (1/2")	3,18 mm (1/8")	14,2 mm	4,8 bar (70 psi)	3,1 bar (45 psi)	760 mmHg	760 mmHg
VS7,94CA11,11	7,94 mm (5/16")	11,11 mm (7/16")	1,59 mm (1/16")	49,2 mm	2,4 bar (36 psi)	1,5 bar (22 psi)	760 mmHg	760 mmHg
VS9,53CA12,7	9,53 mm (3/8")	12,7 mm (1/2")	1,59 mm (1/16")	44,4 mm	2,3 bar (34 psi)	1,3 bar (19 psi)	760 mmHg	635 mmHg
VS9,53CA14,29	9,53 mm (3/8")	14,29 mm (9/16")	2,38 mm (3/32")	33,3 mm	3,1 bar (45 psi)	1,8 bar (27 psi)	760 mmHg	760 mmHg
VS9,53CA15,88	9,53 mm (3/8")	15,88 mm (5/8")	3,18 mm (1/8")	26,9 mm	3,7 bar (54 psi)	2,2 bar (33 psi)	760 mmHg	760 mmHg
VS11,11CA15,88	11,11 mm (7/16")	15,88 mm (5/8")	2,38 mm (3/32")	17,4 mm	2,7 bar (40 psi)	1,4 bar (21 psi)	760 mmHg	760 mmHg
VS11,11CA17,46	11,11 mm (7/16")	17,46 mm (11/16")	3,18 mm (1/8")	34,9 mm	3,3 bar (49 psi)	1,9 bar (29 psi)	760 mmHg	760 mmHg
VS12,7CA15,88	12,7 mm (1/2")	15,88 mm (5/8")	1,59 mm (1/16")	73,0 mm	1,7 bar (26 psi)	0,9 bar (14 psi)	508 mmHG	127 mmHg
VS12,7CA17,46	12,7 mm (1/2")	17,46 mm (11/16")	2,38 mm (3/32")	53,9 mm	2,4 bar (36 psi)	1,2 bar (18 psi)	760 mmHg	760 mmHg
VS12,7CA19,05	12,7 mm (1/2")	19,05 mm (3/4")	3,18 mm (1/8")	44,4 mm	3,1 bar (46 psi)	1,8 bar (27 psi)	760 mmHg	760 mmHg
VS15,88CA19,05	15,88 mm (5/8")	19,05 mm (3/4")	1,59 mm (1/16")	104,7 mm	1,6 bar (24 psi)	0,7 bar (11 psi)	254 mmHg	127 mmHg
VS15,88CA20,64	15,88 mm (5/8")	20,64 mm (13/16")	2,38 mm (3/32")	76,2 mm	2,2 bar (32 psi)	1,1 bar (16 psi)	760 mmHg	381 mmHg
VS15,88CA22,23	15,88 mm (5/8")	22,23 mm (7/8")	3,18 mm (1/8")	60,3 mm	2,6 bar (38 psi)	1,4 bar (21 psi)	760 mmHg	760 mmHg
VS19,05CA23,81	19,05 mm (3/4")	23,81 mm (15/16")	2,38 mm (3/32")	101,6 mm	1,7 bar (26 psi)	0,8 bar (13 psi)	381 mmHg	127 mmHg
VS19,05CA25,4	19,05 mm (3/4")	25,4 mm (1")	3,18 mm (1/8")	82,5 mm	2,2 bar (33 psi)	1,3 bar (20 psi)	760 mmHg	635 mmHg
VS22,23CA28,58	22,23 mm (7/8")	28,58 mm (1-1/8")	3,18 mm (1/8")	104,7 mm	2,0 bar (30 psi)	1,2 bar (18 psi)	760 mmHg	508 mmHg
VS25,4CA31,75	25,4 mm (1")	31,75 mm (1-1/4")	3,18 mm (1/8")	130,1 mm	1,9 bar (28 psi)	0,9 bar (14 psi)	381 mmHg	254 mmHg

*Working pressures are calculated at a 1:5 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.

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Typical Physical Properties of Versilon™ C-210-A Tubing

Property	ASTM Method	Value of Rating
Durometer Hardness	D2240	82° Shore A, 15s
Color	-	natural /transparent
Specific Gravity	D792	1.20
Tensile Strenght	D412	6.050 psi (41.7 MPa)
Ultimate Elongation	D412	500,00%
Tear Resistance	D1004 D624	83.1 kN/m (475 lb-f/in) 70 kN/m (400 lb-f/in)
Compression Set Constant Deflection @ 70°C (158°F) for 22 hrs	D395 Method B	68,00%
Dielectric Strenght	D149	12.9 kV/mm (330 v/mil)
Tensile Stress @100% Elongation @300% Elongation	D412	800 psi (5.5 MPa) 1.500 psi (10.4 MPa)
Maximum Recommended Operating Temperature Intermittent Prolonged	-	 93° C (200°F) 79° C (175°F)
Tensile Set	D412	98,00%
Brittleness Temperature	D746	-73°C (-100°F)
Water Absorption, 24 hrs. @ 23°C	D570	1.12 %

Versilon™ C-210-A TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.