

Bioprene

Bioprene - Thermoplastic tubing



Features and benefits

- Certification: USP Class VI and FDA regulation 21CFR 177.2600 for contact with aqueous food
- Sterilisable by gamma irradiation and autoclaving
- Available as standard in 15 different bore sizes (13 for elements), five wall thicknesses (3 for elements) and three coil lengths, including bulk reels and LoadSure elements. Other sizes available on request.
- Operating temperature: 5 °C to 80 °C
- Colour/transparency: Beige/opaque
- Spallation: Low



Technical specifications

	Bioprene
Bore size	0.5 - 25.4 mm (0.02 - 1 in)
Wall thickness	1.6 - 4.8 mm (0.0625 - 0.1875 in)
Length	3 - 152 m (10 - 500 Ft)
Colour	Beige
Transparency	Opaque
Spallation	Low
Certification and compliance	FDA 21CFR177.2600, USP Class VI
Operating temperature	5 °C to 80 °C (41 °F to 176 °F)
Hardness, shore A (5sec)	62 to 68
Specific gravity	0.95 to 0.98 g/ml
UV resistance	Excellent
Ultimate tensile strength	≥ 5.3 MPa (≥ 798 psi)
Elongation at break	340 to 600 %
Tensile stress at 100% elongation	1.9 - 3 Mpa (28 - 43 Psi)
Gas permeability rating	Low
Compression set	5 to 42.5 %
Water absorption	Low
Shelf life	5 years
Gamma stability	25 kGy to 45 kGy
Autoclave stability	121 °C 30 minutes
Sterilisation methods	Autoclave, Gamma

ASTM methods Hardness: ASTM D 2240; Specific gravity: ASTM D 792; Tear B, Ultimate tensile strength, Elongation at break, Tensile stress at 100 % elongation; ASTM D 412

Functional testing of Bioprene in a pump head shows acceptable performance at 45 kGy. All validation test data for irradiated samples are subjected to a gamma irradiation dose of 50 kGy prior to testing

Materials of construction

	Bioprene
Tubing	Thermoplastic elastomer

Product codes

Tube ordering codes						
Bore		Wall		Coil Size		
mm	inch	mm	inch	15m/50ft	5m/16ft	152m/500ft
0.5	1/50	1.6	1/16	933.0005.016	933.0005.J16	933.0005.R16
0.8	1/32	1.6	1/16	933.0008.016	933.0008.J16	933.0008.R16
1.6	1/16	1.6	1/16	933.0016.016	933.0016.J16	933.0016.R16
2.4	3/32	1.6	1/16		933.0024.J16	933.0024.R16
3.2	1/8	1.6	1/16	933.0032.016	933.0032.J16	933.0032.R16
4.8	3/16	1.6	1/16	933.0048.016	933.0048.J16	933.0048.R16
6.4	1/4	1.6	1/16	933.0064.016	933.0064.J16	933.0064.R16
8	5/16	1.6	1/16	933.0080.016	933.0080.J16	933.0080.R16
1.6	1/16	2.4	3/32	933.0016.024	933.0016.J24	933.0016.R24
3.2	1/8	2.4	3/32	933.0032.024	933.0032.J24	933.0032.R24
						10m/32ft
2.4	3/32	1.6	1/16			933.0024.016
						122m/400ft
4.8	3/16	2.4	3/32	933.0048.024	933.0048.J24	933.0048.R24
						91m/300ft
6.4	1/4	2.4	3/32	933.0064.024	933.0064.J24	933.0064.R24
						61m/200ft
8	5/16	2.4	3/32	933.0080.024	933.0080.J24	933.0080.R24
						46m/150ft
9.6	3/8	2.4	3/32	933.0096.024	933.0096.J24	933.0096.R24
					3m/10ft	61m/200ft
6.4	1/4	3.2	1/8	933.0064.032	933.0064.I32	933.0064.R32
						46m/150ft
9.6	3/8	3.2	1/8	933.0096.032	933.0096.I32	933.0096.R32
12.7	1/2	3.2	1/8	933.0127.032	933.0127.I32	-
15.9	5/8	3.2	1/8	933.0159.032	933.0159.I32	-
8	-	4	-	933.0080.040	933.0080.I40	-
12	-	4	-	933.0120.040	933.0120.I40	-
16	-	4	-	933.0160.040	933.0160.I40	-
9.6	3/8	4.8	3/16	933.0096.048	933.0096.I48	-
12.7	1/2	4.8	3/16	933.0127.048	933.0127.I48	-
15.9	5/8	4.8	3/16	933.0159.048	933.0159.I48	-
19	3/4	4.8	3/16	933.0190.048	933.0190.I48	-
25.4	1	4.8	3/16	933.0254.048	933.0254.I48	-

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