

# Bioprene Elements

Bioprene - Thermoplastic tubing

## Features and benefits

- Certification: USP Class VI and FDA regulation 21CFR 177:2600 for contact with aqueous food
- Sterilizable 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: 41 °C to 176 °C
- Color / transparency: Beige/opaque
- Spallation: Low



## Technical specifications

	Bioprene Elements
Bore size	1.6 - 25.4 mm
Bore size	0.0625 - 1 in
Wall thickness	2.4 - 4.8 mm
Wall thickness	0.09375 - 0.2 in
Colour	Beige
Transparency	Opaque
Spallation	Low
Certification	FDA 21CFR177.2600, NSF51 listed, USP Class VI
Operating temperature range	5 to 80 °C
Operating temperature range	41 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	>=798 psi
Ultimate tensile strength	>=5.3 MPa
Elongation at break	340 to 600 %
Tensile stress at 100% elongation	1.9 to 3 Mpa
Tensile stress at 100% elongation	28 to 43 Psi
Gas permeability rating	Low
Compression set	5 to 42.5 %
Water absorption	Low
Shelf life	5 years
Gamma stability	25 to 40kGy
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

## Materials of construction

	Bioprene Elements
Tubing	Thermoplastic elastomer
Connector material	PVDF

## Product codes

Bioprene Double Segment Kynar Y-Element ordering codes				
Bore		Wall Thickness		Product codes
mm	inch	mm	inch	
1.6	1/16	2.4	3/32	933.E016.K24
3.2	1/8	2.4	3/32	933.E032.K24
4.8	3/16	2.4	3/32	933.E048.K24
6.4	1/4	2.4	3/32	933.E064.K24
8.0	5/16	2.4	3/32	933.E080.K24
8.0	5/16	4.0	5/32	933.E080.K40
9.6	3/8	2.4	3/32	933.E096.K24
12.0	15/32	4.0	5/32	933.E120.K40
16.0	5/8	4.0	5/32	933.E160.K40

  

Bioprene Loadsure Elements ordering codes	
Product Name	Product codes
Bioprene 520 LoadSure TI 3.2mm Bore Tri-Clamp Element	933.0032.PFT
Bioprene 520 LoadSure TM 3.2mm TM Bore Tri-Clamp Element 0-4 bar peak pressure	933.P032.PFT
Bioprene 520 LoadSure TH 3.2mm TM Bore Tri-Clamp Element 0-7 bar peak pressure	933.H032.PFT
Bioprene 520 LoadSure TI 6.4mm Bore Tri-Clamp Element	933.0064.PFT
Bioprene 520 LoadSure TM 6.4mm Bore Tri-Clamp Element 0-4 bar peak pressure	933.P064.PFT
Bioprene 520 LoadSure TI 9.6mm Bore Tri-Clamp Element	933.0096.PFT
Bioprene 620 LoadSure TI 12mm Bore Tri-Clamp Element	933.0120.PFT
Bioprene 620 LoadSure TM 12mm Bore Tri-Clamp Element 0-4 bar peak pressure	933.P120.PFT
Bioprene 620 LoadSure TI 17mm Bore Tri-Clamp Element	933.0170.PFT
Bioprene 620 LoadSure TM 17mm Bore Tri-Clamp Element 0-4 bar peak pressure	933.P170.PFT
Bioprene 720 LoadSure 12.7mm Bore Tri-Clamp Element	933.0127.PFT
Bioprene 720 LoadSure hard 80 Shore 12.7 x 4.8 mm	933.P127.G48
Bioprene 720 LoadSure 15.9mm Bore Tri-Clamp Element	933.0159.PFT
Bioprene 720 LoadSure hard 80 Shore 15.9 x 4.8 mm	933.P159.G48
Bioprene 720 LoadSure 19mm Bore Tri-Clamp Element	933.0190.PFT
Bioprene 720 LoadSure hard 80 Shore 19.0 x 4.8 mm	933.P190.G48
Bioprene 720 LoadSure 25.4mm Bore Tri-Clamp Element	933.0254.PFT
Bioprene 720 LoadSure hard 80 Shore 25.4 x 4.8 mm	933.P254.G48

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