

# Bioprene Elements

*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 Elements
Bore size	1.6 - 25.4 mm (0.0625 - 1 in)
Wall thickness	2.4 - 4.8 mm (0.09375 - 0.2 in)
Colour	Beige
Transparency	Opaque
Spallation	Low
Certification and compliance	FDA 21CFR177.2600, NSF51 listed, 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	$\geq 5.3$ Mpa ( $\geq 798$ 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 40 kGy
Autoclave stability	121 °C 30 minutes
Sterilisation methods	Autoclave, Gamma

Autoclave sterilisation is not recommended for Bioprene Loadsure Elements with these two part numbers 933.P120.PFT and 933.P170.PFT

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

Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. LoadSure is a trademark of Watson-Marlow Limited. Please state the product code when ordering pumps and tubing.



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