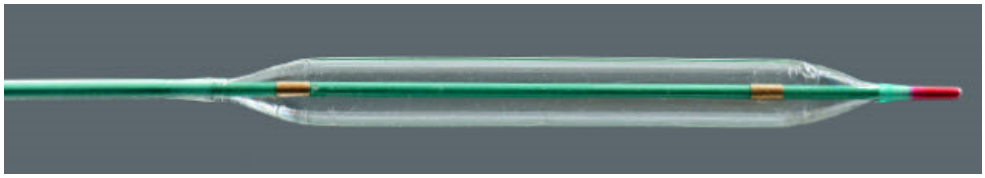
MT-LWA, flexible medical tubing

MT-LWA is a 2:1 to 3:1 heat shrinkable medical grade USP VI biocompatibility, crosslinked modified polyolefin tubing product designed for process aid application for minimally invasive medical devices. It is nearly homogenous and essentially free from flaws, defects, pinholes, seams, cracks or inclusions. The product will recover to a predetermined size upon application of heat in excess of 121°C (250°F). With the Raychem crosslink advantage material can reflow nylon/pebax grade plastics. MT-LWA tubes are delivered double packed.



Product Facts

- USP Class VI biocompatibility
- Easy tear capability- axial tear propagation
- Easy to remove after application
- Improves process reflow yields
- Designed for superior cosmetic clarity performance for lase welding applications
- Processing aid for laser welding of stents and balloons
- Process aid for Reflow sleeve
- Customer sizes and shrink ratios available on request

Specifications and Approvals

- USP Class VI
- ROHS
- ISO 10993

Temperature

Min. shrinking temperature	+95°C
Min. full recovery temperature	+121°C

Dimensions in mm / Shrink ratio 2:1

Part Number	Inside Diameter		Wall Thickness
	As supplied	After heating	After full recovery
MT-LWA-1/32-X-SP / STK	1.02 +/- 0.13	0.33 +/- 0.05	0.25 +/- 0.05
MT-LWA-3/64-X-SP / STK	1.40 +/- 0.13	0.51 +/- 0.08	0.31 +/- 0.05
MT-LWA-1/16-X-SP / STK	1.83 +/- 0.13	0.69 +/- 0.10	0.43 +/- 0.08
MT-LWA-3/32-X-SP / STK	2.72 +/- 0.20	1.07 +/- 0.10	0.51 +/- 0.08
MT-LWA-1/8-X-SP / STK	3.56 +/- 0.25	1.45 +/- 0.13	0.51 +/- 0.08
MT-LWA-3/16-X-SP / STK	5.21 +/- 0.25	2.18 +/- 0.18	0.51 +/- 0.08
MT-LWA-1/4-X-SP / STK	6.99 +/- 0.38	2.97 +/- 0.20	0.64 +/- 0.08
MT-LWA-3/8-X-SP / STK	10.54 +/- 0.51	4.34 +/- 0.41	0.64 +/- 0.08

Dimensions in mm / Shrink ratio 3:1

Part Number	Inside Diameter		Wall Thickness
	As supplied	After heating	After full recovery
MT-LWA-.032-X-SP / STK	0.81	0.28	0.25 +/- 0.05
MT-LWA-.047-X-SP / STK	1.35	0.33	0.31 +/- 0.05
MT-LWA-.063-X-SP / STK	1.60	0.53	0.41 +/- 0.05
MT-LWA-.078-X-SP / STK	1.98	0.64	0.41 +/- 0.05
MT-LWA-.094-X-SP / STK	2.39	0.79	0.51 +/- 0.08
MT-LWA-.110-X-SP / STK	2.79	0.86	0.51 +/- 0.08
MT-LWA-.125-X-SP / STK	3.18	1.07	0.51 +/- 0.08
MT-LWA-.188-X-SP / STK	4.78	1.60	0.51 +/- 0.08
MT-LWA-.250-X-SP / STK	6.35	2.11	0.64 +/- 0.08
MT-LWA-.375-X-SP / STK	9.53	3.18	0.64 +/- 0.08

Property	**Unit**	**Requirement**	**Test Method**
Physical			
Dimensions*	Inches (mm)	In accordance with Table 1	
Longitudinal change*	percent	+0, -10 maximum	ASTM D 2671
Concentricity as supplied*	percent	70 minimum (2:1 Exp. ratio) 60 minimum (3:1 Exp. ratio)	ASTM D 2671
Tensile strength*	psi *(MPa)*	1500 minimum *(10:3)*	ASTM D 2671,20"/minute
Ultimate elongation*	percent	200 minimum	
Secant modulus* (expanded)	psi *(MPa)*	2.5 x 10^4 maximum *(172)*	ASTM D 2671
Heat resistance 168 hours at 175°C (347°F)			
Followed by test for: Ultimate elongation	percent	100 minimum	ASTM D 2671, 20"/minute
Electrical Dielectric strength	volts/mil*(volts/mm)*	500 minimum *(19.7)*	ASTM D 2671
Dielectric withstand 3000V, 60Hz	sec	60 minimum	ASTM D 2671
Chemical Fluid resistance 24 hours at 23 ± 3°C (77 ± 5°F) Isopropyl alcohol 5% saline solution Disinfectant Followed by tests for:			ASTM D 2671
Dielectric strength	volts/mil*(volts/mm)*	400 minimum *(15.7)*	
Tensile strength	psi *(MPa)*	1000 minimum *(6.9)*	ASTM D 2671
Heavy metals analysis Cadmium Mercury Lead Bismuth Antimony	ppm	1 maximum (total of all metals)	USP XXII Physiochemical tests-plastic (Note 1)

*Denotes lot acceptance test

Note 1: Sample preparation and extraction is per USP XXII. Metals analysis may be colorimetric as described in USP XXII or by equivalent quantitative analytical method.