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# Medical Tubing Solutions

MT-LWA (Laser-Welding Application)

Altera Polyolefin Tubing

Laser-Welding Process Aid

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# Altera Polyolefin Tubing Laser-Welding Process Aid



## Altera Polyolefin Tubing Laser-Welding Process Aid



### Key Features

2:1 or 3:1 shrink ratios, custom sizes available

Flexible; forms to irregular shapes

Good clarity for laser-welding

Excellent electrical insulation properties

Removes easily after application, good axial tear propagation

### DESCRIPTION

Useful for laser-welding operations of stents and balloons, hot jaw bonding or other secondary value-added processes. Heat-shrinkable tubing helps hold joints in place during operation and removes easily without residue or damage to the end product.

### INSTALLATION TEMPERATURE

Minimum shrink temperature: 95°C [203°F]

Minimum Full Recovery Temperature: 121°C [250°F]

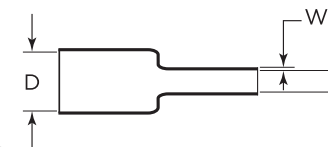
### SPECIFICATIONS & APPROVALS

U.S. Pharmacopeia Class VI Plastics

ASTM D 2617

ISO 10993

### Product Dimensions



Size	As Supplied		Recovered			
	Inside Diameter (D) Minimum		Inside Diameter (d) Maximum		Wall Thickness (W) Nominal	
	in.	mm.	in.	mm.	in.	mm.
1/32	0.040 ± 0.005	1.02 ± 0.13	0.013 ± 0.002	0.33 ± 0.05	0.010 ± 0.002	0.25 ± 0.05
3/64	0.055 ± 0.005	1.40 ± 0.13	0.020 ± 0.003	0.51 ± 0.08	0.012 ± 0.002	0.31 ± 0.05
1/16	0.072 ± 0.005	1.83 ± 0.13	0.027 ± 0.004	0.69 ± 0.10	0.017 ± 0.003	0.43 ± 0.08
3/32	0.107 ± 0.008	2.72 ± 0.20	0.042 ± 0.004	1.07 ± 0.10	0.020 ± 0.003	0.51 ± 0.08
1/8	0.140 ± 0.010	3.56 ± 0.25	0.057 ± 0.005	1.45 ± 0.13	0.020 ± 0.003	0.51 ± 0.08
3/16	0.205 ± 0.010	5.21 ± 0.25	0.086 ± 0.007	2.18 ± 0.18	0.020 ± 0.003	0.51 ± 0.08
1/4	0.275 ± 0.015	6.99 ± 0.38	0.117 ± 0.008	2.97 ± 0.20	0.025 ± 0.003	0.64 ± 0.08
3/8	0.415 ± 0.020	10.54 ± 0.51	0.171 ± 0.016	4.34 ± 0.41	0.025 ± 0.003	0.64 ± 0.08

### ELECTRICAL

Dielectric strength: 500 V/mil (19.7 kV/mm) minimum

Dielectric Withstand 3000V, 60 Hz: 60 sec. minimum

### MECHANICAL

Longitudinal change: +0, -10% maximum

Tensile strength: 1500 psi minimum (10.3 MPa)

Ultimate elongation: 200% minimum

2% Secant Modulus: 2.5 x 10<sup>4</sup> psi maximum (172MPa)

### ORDERING INFORMATION

<b>Color</b>	Clear (-X) Only
<b>Size selection</b>	Always order the largest size that will recover snugly over the substrate. Special order sizes are available upon request.
<b>Standard packaging</b>	On plastic spools (SP), double-bagged
<b>Ordering description</b>	Specify product name and size (for example, MT-LWA-3/32-X-SP)  Non-standard sizes are available upon request. Please contact us with your MT-LWA sizing needs.

### ALTERA TUBING LINE

	MT 1000	MT 2000	MT 3000	MT 5000	MT 5500	MT 6000	MT-PBX (D*)	MT-PBX (D*/D*)	MT-FEP	MT-LWA
Shrink Ratio	2:1	2.5:1	2:1	2:1	2:1	4:1	2:1	2:1	1.6:1	2:1 or 3:1
Material	Fluoropolymer	Polyolefin	Fluoropolymer	Polyolefin	Polyolefin	Polyolefin	PEBA	PEBA	Fluoropolymer	Polyolefin
Flexibility	Semi-Rigid	Semi-Rigid	Flexible	Flexible	Very Flexible	Flexible	Flex-Rigid*	Flex-Rigid*	Semi-Rigid	Flexible
Temperature (Full Rec)	175°C	110°C	150°C	105°C	100°C	125°C	190°C*	190°C*	210°C	121°C
Adhesive Layer	Optional	Optional	Optional	Optional	Optional	Optional	Optional	No	No	No

\* = Shore D Durometer dependent