

MT-2000 HDPE Heat Shrink Tubing

Applications

- Abrasion protection for electrosurgical devices
- High performance insulation for electrosurgical devices



PROFILE

- Shrink ratio <_ 3:1*
 - Full recovery at 140°C (284°F) minimum
 - Supports sterilization environments: gamma and ethylene oxide (ETO)
 - Manufactured to ISO 10993 standards
 - Registered with the FDA: MAF-727
 - Custom sizing, colors, finishing and value-add options available
 - Radiopacity can be customized
- * Select sizes

ABOUT

- MT-2000 is a crosslinked high-density polyethylene (HDPE) heat shrink tubing and offers excellent abrasion protection and high-performance insulation.
- Its homogenous structure (properties evenly distributed) contributes to its consistency and high performance, thereby reducing the likelihood that flaws, defects, pinholes, seams, cracks or inclusions will occur after the product is fully recovered at the temperature stated above.
- MT-2000 is sometimes shipped in the air-spooled condition which helps maintain tubing shape and form. Use of only part of the air-spooled MT-2000 reel may result in loss of air pressure and shape to the remaining product on the reel, which could cause the remaining product to kink or twist. Due to the pliable nature of the product, full recovery of the MT-2000 at the temperature set forth above will remove twists and kinks so the product can be used.
- MT-2000 is semi-rigid and mechanically tough, with high insulating properties, making our MT-2000 a great option for electrosurgical device applications.

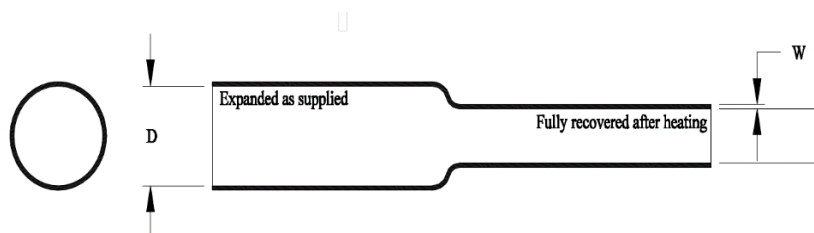


TABLE 1: DIMENSIONS

Standard Sizes	As Supplied		Recovered							
	Inside Diameter Minimum (D)		Inside Diameter Maximum (d)		Wall Thickness (W)					
	in.	mm.	in.	mm.	Minimum	Maximum	Nominal			
Size	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
1mm	.040	1.0	.018	0.45	.008	0.20	0.12	0.30	.010	0.25
2mm	.080	2.0	.032	0.80	.008	0.20	0.12	0.30	.010	0.25
3mm	.120	3.0	.048	1.20	.008	0.20	0.12	0.30	.010	0.25
6mm	.240	6.0	.096	2.4	.008	0.20	0.12	0.30	.010	0.25
10mm	.400	10.0	.160	4.0	.012	0.30	0.16	0.41	.014	0.36

TABLE 2: PROPERTIES

Property	Unit	Requirement	Test Method
Physical			
Dimensions*	inches (<i>mm</i>)	In accordance with Table 1	
Longitudinal change*	percent	+0, -10 maximum	ASTM D 2671
Concentricity as supplied*	percent	60 minimum	ASTM D 2671
Tensile strength*	psi (<i>MPa</i>)	3000 minimum (<i>20.7</i>)	ASTM D 2671,
Ultimate elongation*	percent	200 minimum	20"/minute
Secant Modulus* (expanded)	psi (<i>MPa</i>)	5.0 x 10 ⁴ minimum (<i>344</i>)	ASTM D 2671
Heat resistance 168 hours at 250 ± 5°C (482°F) Followed by test for: Ultimate elongation			ASTM D 2671, 20"/minute
	percent	200 minimum	
Electrical			
Dielectric strength	volts/mil (<i>volts/mm</i>)	1000 minimum (<i>39.36</i>)	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			ASTM D 2671
Followed by tests for: Dielectric strength	volts/mil (<i>volts/mm</i>)	1000 minimum (<i>39.36</i>)	
Tensile strength	psi (<i>MPa</i>)	3000 minimum (<i>20.7</i>)	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.

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