

Altera™ MicroFit Heat - Shrinkable Tubing

This specification covers the requirements for two types of single wall, electrical insulating, extruded tubing whose diameters will reduce to a predetermined size upon application of heat in excess of 175° C (347° F) for MT1000 and 140° C (284° F) for MT2000.

The tubing shall be homogenous and essentially free from flaws, defects, pinholes, seams, cracks or inclusions.

The tubing is fabricated from materials, which meet the requirements of U.S. Pharmacopeia Class VI Plastics. Color shall be translucent or black unless otherwise specified.

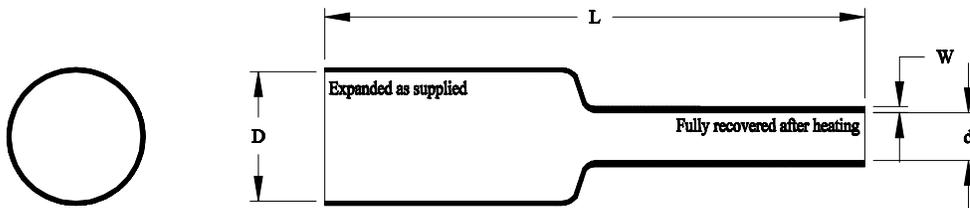


Table 1: Dimensions inches (mm)

Size	As Supplied	Recovered	
	Expanded I.D. Minimum (D)	Recovered I.D. Maximum (d)	Recovered Wall Maximum (W)
MFT-*- No.1-**	.014 (.356)	.007 (.178)	.005 (.127)
MFT-*- No.2-**	.024 (.610)	.012 (.305)	.006 (.152)
MFT-*- No.33-**	.045 (1.143)	.017 (.432)	.007 (.118)
MFT-*- No.65-**	.025 (.635)	.010 (.254)	.013 (.330)

* = material MT1000 or MT2000

** = color

MT1000 is semi-rigid polyvinylidene material.

MT2000 is medical grade polyolefin material.

Specification Control Drawing

		Tyco Electronics Corporation 300 Constitutional Drive Menlo Park, CA 94025 USA		Raychem		Title: Altera™ MicroFit Heat - Shrinkable Tubing	
		Tyco Electronics reserves the right to amend this drawing at any time. Users should evaluate the suitability of the product for their application				Document No : Altera MicroFit	
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MT1000

Property	Unit	Requirement	Test Method
Physical			
* Dimensions	Inches (<i>mm</i>)	In accordance with Table 1	ASTM D 2671
Tensile Strength	PSI (<i>MPa</i>)	5000 minimum (<i>34.5</i>)	ASTM D 2671,
Ultimate Elongation	Percent	150 minimum	2"/ minute
Secant Modulus (as supplied)	PSI (<i>MPa</i>)	1x10 ⁵ minimum (<i>690</i>)	ASTM D 2671
Electrical			
Dielectric Strength	Volts/mil Volts/mm	800 minimum (<i>31,500</i>)	ASTM D 2671
Dielectric Withstand 3000V, 60 Hz	sec	60 minimum	ASTM D 2671
Heavy Metals Analysis Cadmium Mercury Lead Bismuth Antimony	ppm	1 maximum (total of all metals)	USP XXII Physicochemical Tests-Plastics (Note 1)

MT2000

Property	Unit	Requirement	Test Method
Physical			
* Dimensions	Inches (<i>mm</i>)	In accordance with Table 1	ASTM D 2671
* Tensile Strength	PSI (<i>MPa</i>)	3000 minimum (<i>20.7</i>)	ASTM D 2671,
* Ultimate Elongation	Percent	200 minimum	2"/ minute
Secant Modulus (as supplied)	PSI (<i>MPa</i>)	5x10 ⁴ minimum (<i>344</i>)	ASTM D 2671
Electrical			
Dielectric Strength	Volts/mil Volts/mm	1000 minimum (<i>39,360</i>)	ASTM D 2671
Dielectric Withstand 3000V, 60 Hz	sec	60 minimum	ASTM D 2671
Heavy Metals Analysis Cadmium Mercury Lead Bismuth Antimony	ppm	1 maximum (total of all metals)	USP XXII Physicochemical Tests-Plastics (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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