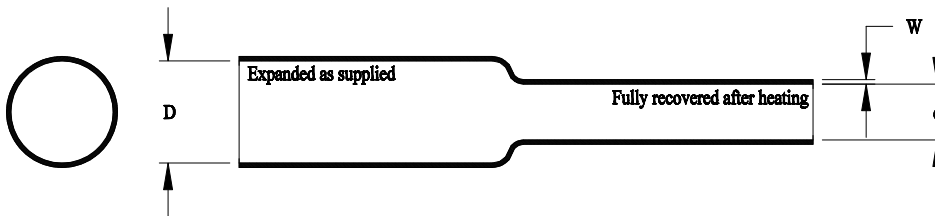


Altera™  
**MT5500**  
 Very Flexible, Modified Polyolefin,  
 Heat - Shrinkable Tubing



This specification covers the requirements for one type of single wall, electrical insulating, extruded tubing whose diameter will reduce to a predetermined size upon application of heat in excess of 110°C (230°F).

The tubing is fabricated from modified polyolefin crosslinked by irradiation. It 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 clear unless otherwise specified.

**Table 1: Dimensions                      Standard Sizes**

Size	As Supplied		Recovered							
	Inside Diameter Minimum (D)		Inside Diameter Maximum (d)		Wall Thickness (W)					
	in.	mm.	in.	mm.	Minimum		Maximum		Nominal	
					in.	mm.	in.	mm.	in.	mm.
3/64	0.046	1.17	0.023	0.58	0.013	0.33	0.019	0.48	0.016	0.41
1/16	0.063	1.60	0.031	0.79	0.014	0.36	0.020	0.51	0.017	0.43
3/32	0.093	2.36	0.046	1.17	0.017	0.43	0.023	0.58	0.020	0.51
1/8	0.125	3.18	0.062	1.57	0.017	0.43	0.023	0.58	0.020	0.51
3/16	0.187	4.75	0.093	2.36	0.017	0.43	0.023	0.58	0.020	0.51
1/4	0.250	6.35	0.125	3.18	0.022	0.56	0.028	0.71	0.025	0.64
3/8	0.375	9.53	0.187	4.75	0.022	0.56	0.028	0.71	0.025	0.64
1/2	0.500	12.70	0.250	6.35	0.022	0.56	0.028	0.71	0.025	0.64
3/4	0.750	19.05	0.375	9.53	0.027	0.69	0.033	0.84	0.030	0.76
1	1.000	25.40	0.500	12.70	0.030	0.76	0.040	1.02	0.035	0.89
1-1/2	1.500	38.10	0.750	19.05	0.034	0.86	0.046	1.17	0.040	1.02
2	2.000	50.80	1.000	25.40	0.038	0.97	0.052	1.32	0.045	1.14

<b>CUSTOMER DRAWING</b>						
 <b>Tyco Electronics</b>	Tyco Electronics Corporation 300 Constitutional Drive Menlo Park, CA 94025 USA	<b>Raychem Tubing</b>	Title: <b>Altera™ MT5500 Very Flexible, Modified Polyolefin, Heat - Shrinkable Tubing</b>			
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 : <b>MT5500</b>			
Cage Code: 06090	Scale: None	Size: A	Rev. Date: 27-Sep-10	Rev.: A	Sheet: 1 of 2	

**Table 2: Properties**

Property	Unit	Requirement	Test Method
<b>Physical</b>			
* Dimensions	Inches ( <i>mm</i> )	In accordance with Table 1	ASTM D 2671
* Longitudinal Change	Percent	+0, -10 maximum	
* Concentricity (as supplied)	Percent	70 minimum	ASTM D 2671
* Tensile Strength	psi ( <i>MPa</i> )	1800 minimum ( <i>12.4</i> )	ASTM D 2671, 20"/minute
* Ultimate Elongation	Percent	200 minimum	
2% Secant Modulus (as supplied)	psi ( <i>MPa</i> )	1.0 x 10 <sup>4</sup> maximum ( <i>69</i> )	ASTM D 2671
Heat Resistance 168 hours at 125°C (257°F) Followed by test for: Ultimate Elongation			ASTM D 2671, 20"/minute
	Percent	100 minimum	
<b>Electrical</b>			
Dielectric Strength	Volts/mil ( <i>Volts/mm</i> )	500 minimum ( <i>19.7</i> )	ASTM D 2671
Dielectric Withstand 3000V, 60 Hz	sec	60 minimum	ASTM D 2671
<b>Chemical</b>			
Fluid Resistance 24 hours at 23 ± 3°C (77 ± 5°F) Isopropyl Alcohol 5% Saline Solution Cidex** Followed by tests for:			ASTM D 2671
Dielectric Strength	Volts/mil ( <i>Volts/mm</i> )	500 minimum ( <i>19.7</i> )	ASTM D 2671
Tensile Strength	psi ( <i>MPa</i> )	1800 minimum ( <i>12.4</i> )	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

\*\*Trademark of Johnson & Johnson Company

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.

CUSTOMER DRAWING

Rev. Date: 27-Sep-10	Rev.: A	Document No. <b>MT5500</b>	Sheet: 2 of 2
-------------------------	------------	-------------------------------	------------------

If this document is printed it becomes uncontrolled. Check for the latest revision.