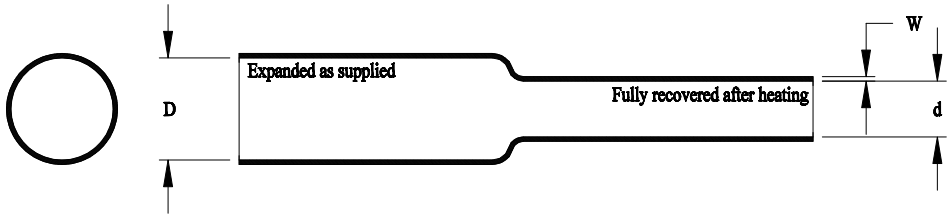
Altera™
MT5500
Very Flexible, Modified Polyolefin, Heat - Shrinkable Tubing



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)					
					Minimum		Maximum		Nominal	
	in.	*mm.*	in.	*mm.*	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*

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Tyco Electronics	Tyco Electronics Corporation 300 Constitutional Drive Menlo Park, CA 94025 USA	**Raychem Tubing**	**Title:** Altera™ MT5500 Very Flexible, Modified Polyolefin, 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 : **MT5500**		
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Table 2: Properties

Property	Unit	Requirement	Test Method
Physical			
* Dimensions	Inches *(mm)*	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 *(MPa)*	1800 minimum *(12.4)*	ASTM D 2671,
* Ultimate Elongation	Percent	200 minimum	20"/ minute
2% Secant Modulus (as supplied)	psi *(MPa)*	1.0 x 10^4 maximum *(69)*	ASTM D 2671
Heat Resistance 168 hours at 125°C (257°F) Followed by test for:			ASTM D 2671,
Ultimate Elongation	Percent	100 minimum	20"/minute
Electrical Dielectric Strength	Volts/mil *(Volts/mm)*	500 minimum *(19.7)*	ASTM D 2671
Dielectric Withstand 3000V, 60 Hz	sec	60 minimum	ASTM D 2671
Chemical 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 *(Volts/mm)*	500 minimum *(19.7)*	ASTM D 2671
Tensile Strength	psi *(MPa)*	1800 minimum *(12.4)*	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
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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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