

Specification RW-2500-3**TE 108-121006****THIN-WALL MARKER SLEEVES
TW-TMS****Approved Signatories:****This document is electronically reviewed and approved by TE Connectivity.**

TE CONNECTIVITY, SWINDON, UK

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1. REVISION HISTORY

Revision Number	Description of change	Date	Incorporated By
1	AFC 256	14/04/04	Alan Kean
2	AFC 372	14/04/04	Alan Kean
3	Refer to PCN	16/07/14 issued 08-2015	Lee Smith

2. SCOPE

This specification sheet, when used with RW-2500, defines the product characteristics and performance of TE Connectivity Thin-Wall Marker Sleeves.

The printing system developed for this marker sleeve is now obsolete. TE can only guarantee the physio-chemical nature of the product, and not any marking applied using non-recommended printing systems. Where non-standard systems are used, customers are required to carry out their own validation testing.

3. REQUIREMENTS**3.1. MATERIAL**

The sleeving shall be fabricated from irradiated, thermally stabilized, modified polyvinylidene fluoride compound. It shall be homogeneous and essentially free from flaws, defects, pinholes, bubbles, seams, cracks or inclusions.

3.2. COLOR

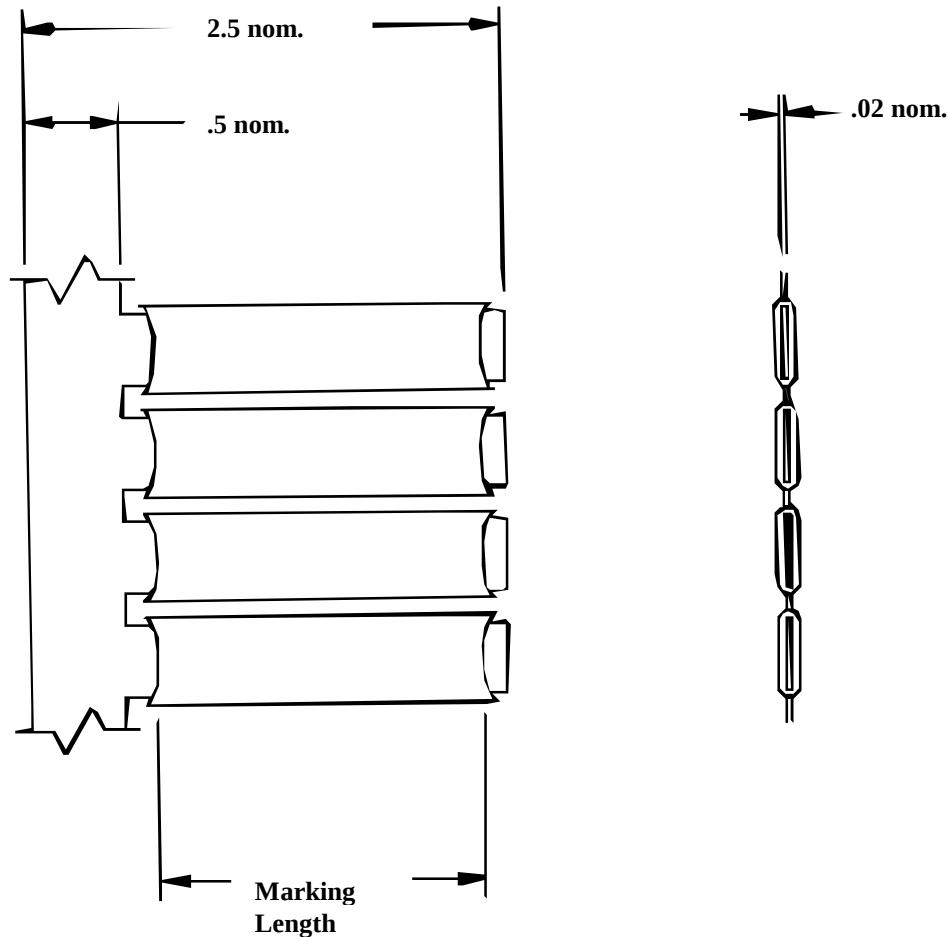
The sleeves shall be supplied in white, unless otherwise specified.

3.3. PROPERTIES

The sleeves shall meet the requirements of Table 3.

3.4. FORM

The sleeves shall be cut lengths in accordance with Table 1.



See Table 1

Dimensions are in inches

Figure 1

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TABLE 1
Sleeve Dimensions

Product Description	As Supplied				Recovered			
	Inside Diameter Minimum		Marking Length Minimum		Inside Diameter Maximum		Wall Thickness	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.
TW-TMS-3/32-1.50	.093	2.36	1.60	39.41	.030	0.76	.017 $\pm$.003	0.43 $\pm$ 0.08
TW-TMS-1/8-1.50	.125	3.17	1.60	39.41	.050	1.27	.017 $\pm$.003	0.43 $\pm$ 0.08
TW-TMS-3/16-1.50	.187	4.74	1.57	38.65	.093	2.36	.018 $\pm$.003	0.46 $\pm$ 0.08
TW-TMS-1/4-1.50	.250	6.35	1.55	38.14	.125	3.17	.018 $\pm$.003	0.46 $\pm$ 0.08
TW-TMS-3/32-1.75	.093	2.36	1.90	47.00	.030	0.76	.017 $\pm$.003	0.43 $\pm$ 0.08
TW-TMS-1/8-1.75	.125	3.17	1.90	47.00	.050	1.27	.017 $\pm$.003	0.43 $\pm$ 0.08
TW-TMS-3/16-1.75	.187	4.74	1.85	45.70	.093	2.36	.018 $\pm$.003	0.46 $\pm$ 0.08
TW-TMS-3/16-OX-1.75	.187	4.74	1.85	45.70	.062	1.57	.022 $\pm$.003	0.55 $\pm$ 0.08
TW-TMS-1/4-1.75	.250	6.35	1.81	44.70	.125	3.17	.018 $\pm$.003	0.46 $\pm$ 0.08
TW-TMS-1/4-OX-1.75	.250	6.35	1.81	44.70	.093	2.36	.022 $\pm$.003	0.56 $\pm$ 0.08

TABLE 2
Mandrel Dimensions for Heat Shock, Heat Aging and Low Temperature Flexibility

Tubing Size	Mandrel Diameter	
	in	mm
3/32 through 3/16	5/16	7.9
1/4 through 3/4	3/4	19.0

TABLE 3 Requirements

PROPERTY	UNIT	REQUIREMENT	RW-2500 TEST METHOD
PHYSICAL			
Dimensions	Inches	In accordance with Table 1	
Dimensional Recovery 3 minutes at 200°C (392°F)	Inches	In accordance with Table 1	RW-2500 Section 4.3.1.1 ASTM D 2671
Longitudinal Change 3 minutes at 200°C (392°F)	Percent	10 maximum	
Tensile Strength	MPa (psi)	10.3 (1500) minimum	RW-2500 Section 4.3.2.1 ASTM D 2671 2 inches/minute
Ultimate Elongation	Percent	200 minimum	
Specific Gravity	---	1.38 maximum	RW-2500 Section 4.3.3 ASTM D 2671
Low Temperature Flexibility 4 hours at -55°C (-67°F)	---	No cracking	RW-2500 Section 4.3.5.1
Heat Shock 4 hours at 250°C (482°F)	---	No dripping, flowing, or cracking	RW-2500 Section 4.3.6.1
Heat Aging 168 hours at 175°C (347°F)	---	No cracking	RW-2500 Section 4.3.7.1
Copper Contact Corrosion 16 hours at 150°C (302°F)	---	No pitting or blackening of copper	RW-2500 Section 4.3.14.1
Pull-Off Force Size: 3/32	N (Pounds)	26 (6.0) maximum	RW-2500 Section 4.3.8
Size: 1/8	N (Pounds)	31 (7.0) maximum	
Size: 3/16	N (Pounds)	35 (8.0) maximum	
Size: 1/4	N (Pounds)	40 (9.0) maximum	
ELECTRICAL			
Dielectric Strength	kV/mm (V/mil)	19.7 (500) minimum	RW-2500 Section 4.3.11.1 ASTM D 2671
Volume Resistivity	ohm-cm	10 ¹⁴ minimum	RW-2500 Section 4.3.12.1 ASTM D 2671
CHEMICAL			
Corrosive Effect 16 hours at 150°C (302°F)	---	Non Corrosive	RW-2500 Section 4.3.13.1 ASTM D 2671
Flammability (FED-STD-228)	---	Burn time shall not exceed one minute, and not more than 25% of indicator flag shall be burned or charred. No dripping or flowing.	RW-2500 Section 4.3.15.3
Fungus Resistance	---	Rating of 1 or less	ASTM G 21
Water Absorption 24 hours at 23°C (73°F)	%	0.5 maximum	ASTM D 570