

RW-2500-3 Revision 3 Page 1 of 5 August 2015

# 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.



RW-2500-3 Revision 3 Page 2 of 5 August 2015

#### 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

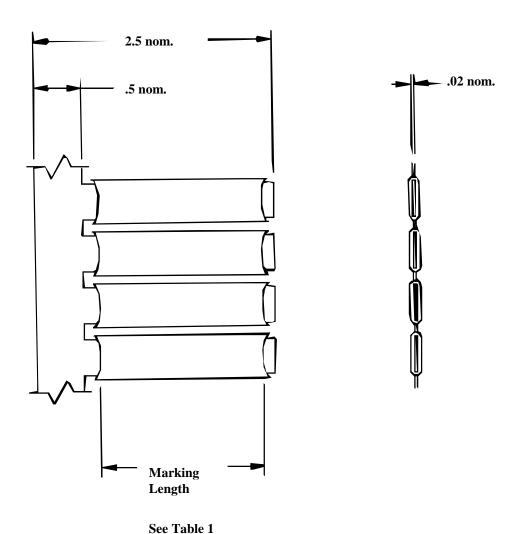
The sleeves shall meet the requirements of Table 3.

#### 3.4. FORM

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



RW-2500-3 Revision 3 Page 3 of 5 August 2015



Dimensions are in inches

Figure 1



RW-2500-3 Revision 3 Page 4 of 5 August 2015

# TABLE 1 Sleeve Dimensions

	As Supplied			Recovered				
Product Description	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 <u>+</u> .003	0.43 <u>+</u> 0.08
TW-TMS-1/8-1.50	.125	3.17	1.60	39.41	.050	1.27	.017 <u>+</u> .003	0.43 <u>+</u> 0.08
TW-TMS-3/16-1.50	.187	4.74	1.57	38.65	.093	2.36	.018 <u>+</u> .003	0.46 <u>+</u> 0.08
TW-TMS-1/4-1.50	.250	6.35	1.55	38.14	.125	3.17	.018 <u>+</u> .003	0.46 <u>+</u> 0.08
TW-TMS-3/32-1.75	.093	2.36	1.90	47.00	.030	0.76	.017 <u>+</u> .003	0.43 <u>+</u> 0.08
TW-TMS-1/8-1.75	.125	3.17	1.90	47.00	.050	1.27	.017 <u>+</u> .003	0.43 <u>+</u> 0.08
TW-TMS-3/16-1.75	.187	4.74	1.85	45.70	.093	2.36	.018 <u>+</u> .003	0.46 <u>+</u> 0.08
TW-TMS-3/16-OX-1.75	.187	4.74	1.85	45.70	.062	1.57	.022 <u>+</u> .003	0.55 <u>+</u> 0.08
TW-TMS-1/4-1.75	.250	6.35	1.81	44.70	.125	3.17	.018 <u>+</u> .003	0.46 <u>+</u> 0.08
TW-TMS-1/4-OX-1.75	.250	6.35	1.81	44.70	.093	2.36	.022 <u>+</u> .003	0.56 <u>+</u> 0.08

TABLE 2

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

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



RW-2500-3 Revision 3 Page 5 of 5 August 2015

#### **TABLE 3 Requirements**

PROPERTY	UNIT	REQUIREMENT	RW-2500 TEST METHOD	
PHYSICAL				
Dimensions	Inches	In accordance with Table 1		
Dimensional Recovery	Inches	In accordance with Table 1	RW-2500 Section	
3 minutes at 200°C (392°F)	11101103	in accordance with rable 1	4.3.1.1	
Longitudinal Change 3 minutes at 200°C (392°F)	Percent	10 maximum	ASTM D 2671	
Tensile Strength	MPa (psi)	10.3 (1500) minimum	RW-2500 Section 4.3.2.1 ASTM D 2671	
Ultimate Elongation	Percent	200 minimum	2 inches/minute	
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		Соррег	7.0.17.1	
Size: 3/32	N (Pounds)	26 (6.0) maximum		
Size: 1/8	N (Pounds)	31 (7.0) maximum	RW-2500 Section 4.3.8	
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 <sup>14</sup> 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	

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

### TE Connectivity:

<u>TWTMS-3/16-OX-NO.11-9</u> <u>TWTMS-1/4-OX-1.75-9</u> <u>TWTMS-3/16-1.75-9</u> <u>TWTMS-3/16-NO.11-9</u> <u>5028840001</u> 5022130010 5022140002 5028940001 5028780001 5028830001 3424310001 5028860001