

**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

While TE Connectivity has made every reasonable effort to ensure the accuracy of the information in this specification, TE Connectivity does not guarantee that it is error-free, nor does TE Connectivity make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE Connectivity reserves the right to make any adjustments to the information contained herein at any time without notice. TE Connectivity expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this document are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE Connectivity for the latest dimensions and design specifications.

**If this document is printed it becomes uncontrolled.**

## 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

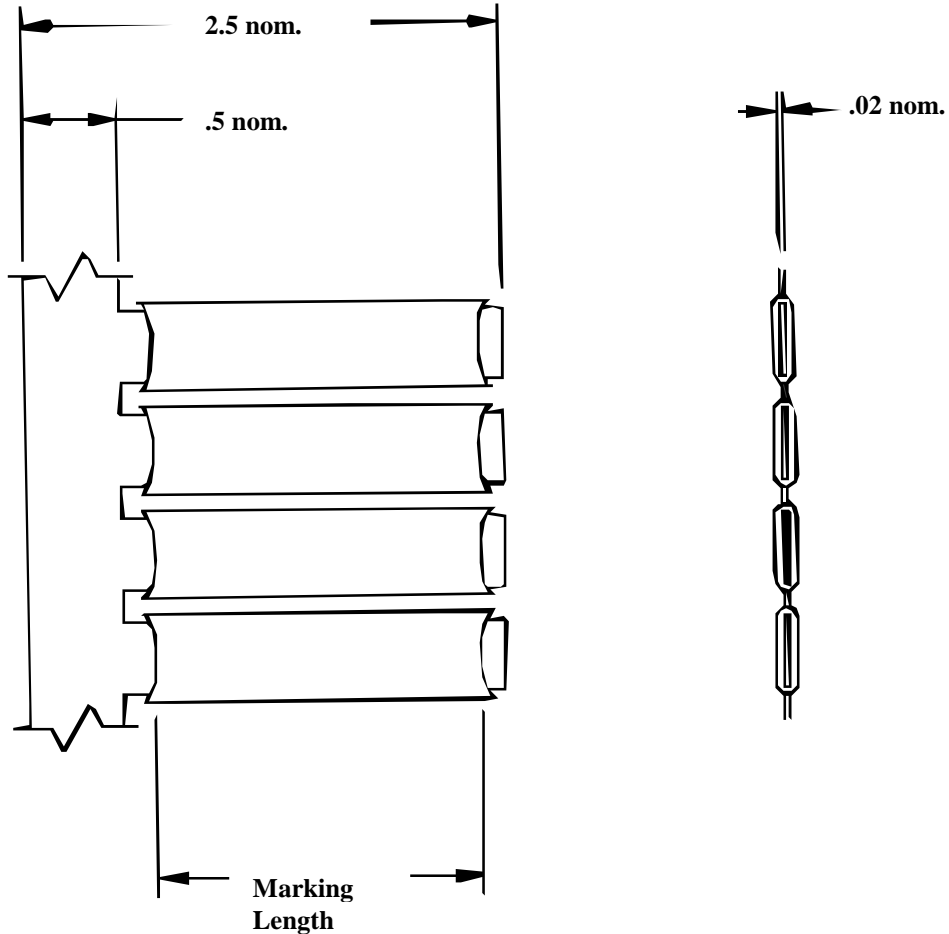
The sleeves shall be supplied in white, unless otherwise specified.

### 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

**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 ± .003	0.43 ± 0.08
TW-TMS-1/8-1.50	.125	3.17	1.60	39.41	.050	1.27	.017 ± .003	0.43 ± 0.08
TW-TMS-3/16-1.50	.187	4.74	1.57	38.65	.093	2.36	.018 ± .003	0.46 ± 0.08
TW-TMS-1/4-1.50	.250	6.35	1.55	38.14	.125	3.17	.018 ± .003	0.46 ± 0.08
TW-TMS-3/32-1.75	.093	2.36	1.90	47.00	.030	0.76	.017 ± .003	0.43 ± 0.08
TW-TMS-1/8-1.75	.125	3.17	1.90	47.00	.050	1.27	.017 ± .003	0.43 ± 0.08
TW-TMS-3/16-1.75	.187	4.74	1.85	45.70	.093	2.36	.018 ± .003	0.46 ± 0.08
TW-TMS-3/16-OX-1.75	.187	4.74	1.85	45.70	.062	1.57	.022 ± .003	0.55 ± 0.08
TW-TMS-1/4-1.75	.250	6.35	1.81	44.70	.125	3.17	.018 ± .003	0.46 ± 0.08
TW-TMS-1/4-OX-1.75	.250	6.35	1.81	44.70	.093	2.36	.022 ± .003	0.56 ± 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	
<b>PHYSICAL</b>				
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	
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 Size: 3/32 Size: 1/8 Size: 3/16 Size: 1/4	N (Pounds) N (Pounds) N (Pounds) N (Pounds)	26 (6.0) maximum 31 (7.0) maximum 35 (8.0) maximum 40 (9.0) maximum	RW-2500 Section 4.3.8	
<b>ELECTRICAL</b>				
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
<b>CHEMICAL</b>				
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	

TE CONNECTIVITY, SWINDON, UK

While TE Connectivity has made every reasonable effort to ensure the accuracy of the information in this specification, TE Connectivity does not guarantee that it is error-free, nor does TE Connectivity make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE Connectivity reserves the right to make any adjustments to the information contained herein at any time without notice. TE Connectivity expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this document are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE Connectivity for the latest dimensions and design specifications.

**If this document is printed it becomes uncontrolled.**



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.