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August 2015

# Specification RW-2500-12 TE 108-121009

# TMS - CABLE MARKERS TMS-CM

Approved Signatories: This document is electronically reviewed and approved by TE Connectivity.

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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 406	21/02/06	Steve Rowland
3	Live in DM.TEC	24/06/10	Auto
4	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 TMS Cable Marker.

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 markers shall be fabricated from irradiated, thermally-stabilized, modified polyolefin compound. The material shall be homogeneous and essentially free from flaws, defects, bubbles, 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 2.

#### 3.4. Form

The markers shall be supplied as a continuous length of carrier strip which has been specifically punched to size, in accordance with Table 1.

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# 4. QUALITY ASSURANCE

# 4.1. Qualification Tests

Qualification tests are those performed on markers and marker material submitted for qualification as a satisfactory product and shall consist of all tests listed in this specification.

#### 4.2. Acceptance Tests

Acceptance tests are those performed on markers submitted for acceptance under contract. Acceptance tests shall consist of the following: dimensions, heat shock (RW-2500).

#### 4.3. Test Specimens

Test specimens shall be individual TMS-CM, detached from the carrier strip. Where RW-2500 is referenced as a test method, the term "marker" or "specimen" shall be understood to mean "TMS-CM".

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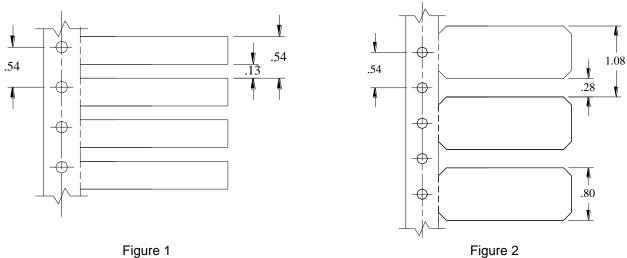
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# **CONFIGURATION OF CARRIER**



TMS-CM ¼ inch size

TMS-CM ½ inch size

**Dimensions in inches (nominal)** 

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# TABLE 1

# **Cable Marker Dimensions**

Part Description	Figure Number	Thickness in Inches	Number of Holes
TMS-CM-1/4-4H	4	.025	4
TMS-CM-1/2-4H	5	.025	4
TMS-CM-1/4-4H	6	.025	4
TMS-CM-1/2-6H	7	.025	6

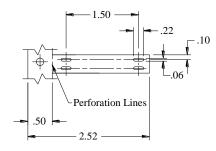


Figure 4 TMS-CM-1/4-4H

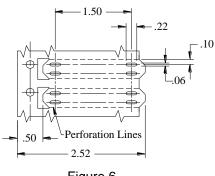


Figure 6 TMS-CM-1/2-6H



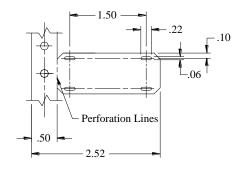


Figure 5 TMS-CM-1/2-4H

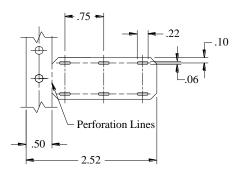


Figure 6 TMS-CM-1/2-6H

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# TABLE 2

# Requirements

PROPERTY	UNIT	REQUIREMENTS	RW-2500 TEST METHOD
PHYSICAL Dimensions	Inches	In accordance with Table 1	RW-2500 Section 4.3.1.2
			ASTM D 638 RW-2500
Tensile Strength Ultimate Elongation	MPa (psi) Percent	10.3 (1500) minimum 200 minimum	Section 4.3.2.2 1/8" wide die cut specimens 2 inches/ min strain rate.
Specific Gravity		1.48 maximum	ASTM D 792
Low Temperature Flexibility 4 hours at -55°C (-67°F)		No cracking	Note 1 RW-2500 Section 4.3.5.2
Heat Shock 4 hours at 250°C (482°F)		No dripping, flowing or cracking	Note 2 RW-2500 Section 4.3.6.2
Heat Aging 168 hours at 175°C (347°F)		No cracking	Note 2 RW-2500 Section 4.3.7.2
CHEMICAL Corrosive Effect		No corrosion	ASTM D 2671 Procedure A RW-2500
16 hours at 175°C (347°F)			Section 4.3.13.2
Limiting Oxygen Index	Percent	25 minimum	ASTM D 2863
Fungus Resistance		Rating of 1 or less	ASTM G 21
Water Absorption 24 hours at 23°C (73°F)	Percent	0.5 maximum	ASTM D 570

Notes

1.In accordance with Section 4.3.5.2 except that specimens shall be bent 90° over a 1-inch dia. mandrel.

2.Specimens shall be bent 90° over a 5/16-inch dia. mandrel.

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