

TMS-SCE and TMS-SCE-2X

HEAT SHRINK IDENTIFICATION SYSTEM

Technical Datasheet

TTDS-023 Revision 9 - May 2021

TMS-SCE Military Grade, Heat Shrink Identification Marker Sleeving, for the identification of wire and cables.

Made from durable, flame retarded, radiation cross linked heat shrinkable polyolefin. Supplied in 'ladder format', sleeves are presented for ease of printing and kitting.

TMS-SCE is a thin wall, light weight, fast recovery 3:1 shrink ratio sleeve, allowing the customer to cover a wide range of cable diameters.

TMS-SCE-2X is a thicker, rugged wall, 2:1 shrink ratio sleeve, which can aid with handling and installation.

Suitable for a wide variety of applications, including aerospace, military, industrial and energy. Marker sleeves meet the mark permanence requirements of AS5942 and MIL 202 Method 215

TMS-SCE meets the material performance requirements of the AMS SAE DTL 23053/5 specification. TMS-SCE-2X sleeves are fabricated from AMS SAE DTL 23053/5 class 1 and 3 tubing.

TMS-SCE and TTMS Heat Shrink Identification products are available as part of a complete identification system. The system comprises specific printers, thermal transfer ribbons and WINTOTAL software.

TMS-SCE MILITARY GRADE

HEAT SHRINK CABLE IDENTIFICATION SYSTEM

Features

- Self-extinguishing, non-flame propagating
- Resistant to key Military and Aerospace fluids (defined by RW-2511)
- Military grade performance
- Can be laser marked for superior performance
- Pre-termination Cable Identification
- Sleeve diameters from 2.4mm to 57.15mm (3/32 to 2 1/4)
- TMS-SCE (3:1 Shrink ratio)
- TMS-SCE-2X (2:1 shrink ratio)

Product Environmental Compliance

- TMS-SCE fully complies with Directive (EU) 2015/863 (amendment to Annex II to EU RoHS 2 Directive 2011/65/EU), and Regulation (EC) number 1907/2006 (REACH)
- Further information and a downloadable declaration covering RoHS and REACH compliance can be found at the TE Product Compliance Support Centre:

http://www.te.com/usa-en/utilities/product-compliance.html

Temperature Rating

- –55°C to 135°C (-67°F to 275°F)

Shelf Life

- Refer to TE document 408-121006

  Cable Identification Shelf Life Document

Application



Specifications / Approvals

TE Connectivity Stand-	RW-2511 Specification for TMS-SCE products
Rail	EN45545-2, Railway applications - Fire protection on railway vehicles, Part 2: Requirements for fire behaviour of materials and components Hazard Level 1 and 2, in accordance with requirement set R24 NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems, Fire protection requirements, Interior Fire Propagation Resistance Federal Railroad Administration, DOT, Appendix B to Part 238, Test Methods and Performance Criteria for the Flammability and Smoke Emission Characteristics of Materials used in Passenger Cars and Locomotive Cabs SHAZAINENNSHI, Japan Railway Rolling Stock & Machinery Association 2003 Classification 'Flame Retardant' Serial number 2015-163K
Military	SAE-AMS-23053/5 Insulation Sleeving, Electrical, Heat Shrinkable, Polyolefin, Semi-Rigid, Crosslinked. • TMS-SCE Class 1 Material performance • TMS-SCE-2X Class 1 and 3 Material performance
Industrial	CSA Standard C22.2 No 198.1 Class Number 9032-01 INSULATING DEVICES AND MATERIALS-Insulating Tubing and Sleeving, File reference 31929 UL Certification, Tubing, Extruded Insulating Component File reference YDPU2.E35586

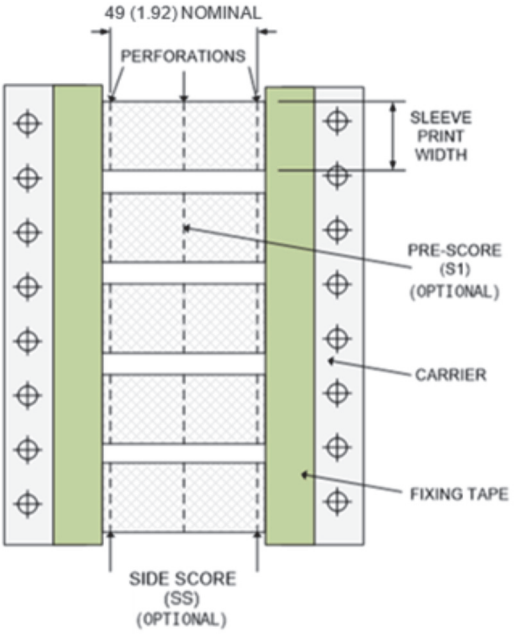
Where possible, TE have tested product as a finished item, including the print. Operational tests are followed by an assessment of mark adherence to validate fit form and function. Further details can be found in TE standard RW-2511.

Part Description

TMS-SCE -1K -1/4 -2.0 -S1 -9

9	Colour
S1	Scoring (Optional)
2.0	Sleeve Length (inches)
1/4	Expanded Inside Diameter (inches)
1K	Pack Size
TMS-SCE	Product Family

Available Options



Dimensions in mm (inches)

Pre-scoring	Perforated score to produce multiple marker sleeves from each sleeve				
	1 Pre-score	Code	S1		
	2 Pre-scores	Code	S2		
	3 Pre-scores	Code	S3		
Packaging sizes		**TMS-SCE**		**TMS-SCE-2X**	
	<blank> 250 pieces	Available for all sizes		3/8 to 3/4	
	0.5 500 pieces	3/4 and above		All Sizes	
	1K 1000 pieces	All Sizes		All Sizes	
	2.5K 2500 pieces	3/32 to 3/8		Not available	
	5K 5000 pieces	3/32 to 3/8		Not available	
Colours	Black	Pink	Red	Orange	Yellow
(TMS-SCE)	0	2L	2	3	4
	Green	Blue	Violet	Grey	White
	5	6	7	8	9

Specify product name, pack size (leave blank if 250 pieces are required), sleeve size, sleeve length, pre-score (leave blank if not required) and colour

Ordering Example: TMS-SCE-1K-1/4-2.0-S1-9

To maximise print contrast, colours are based on pastel shades. TMS-SCE-2X is available in White only.

CLASS 1 DATA CLASSIFICATION - SEE POLICY TEC-02-04

Ordering Information

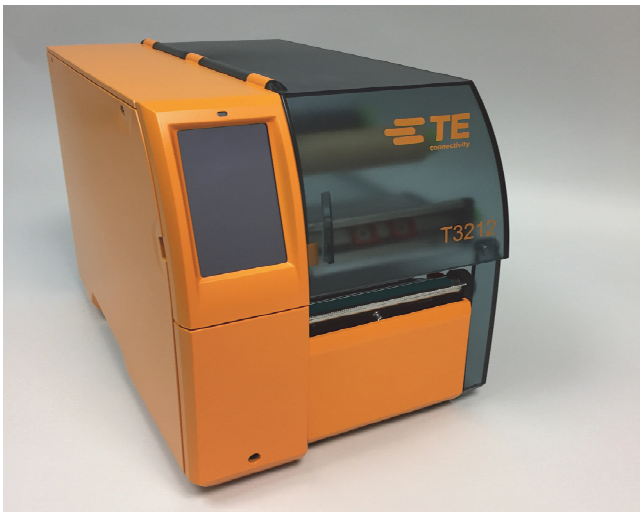
Ordering description	Inside diameter				Recovered Wall Thickness	Weight	Cable Diameter Recommended use range	
	As supplied (minimum)		After recovery (maximum)		(nominal)	(nominal)		
	mm	inches	mm	inches	mm	g	mm	inches
TMS-SCE - <pack size> - 3/32 – 2.0 - <score> - <colour>	2.38	0.093	0.79	0.031	0.58	0.15	0.8 to 1.9	0.032 to 0.075
TMS-SCE - <pack size> - 1/8 – 2.0 - <score> - <colour>	3.18	0.125	1.07	0.042	0.58	0.20	1.1 to 2.6	0.044 to 0.105
TMS-SCE - <pack size> - 3/16 – 2.0 - <score> - <colour>	4.76	0.187	1.57	0.062	0.58	0.27	1.7 to 4.0	0.069 to 0.160
TMS-SCE - <pack size> - 1/4 – 2.0 - <score> - <colour>	6.35	0.250	2.11	0.083	0.58	0.35	2.3 to 5.4	0.091 to 0.215
TMS-SCE - <pack size> - 3/8 – 2.0 - <score> - <colour>	9.53	0.375	3.18	0.125	0.61	0.50	3.4 to 8.1	0.137 to 0.320
TMS-SCE - <pack size> - 1/2 – 2.0 - <score> - <colour>	12.70	0.500	4.22	0.166	0.61	0.68	4.6 to 10.7	0.183 to 0.425
TMS-SCE - <pack size> - 3/4 – 2.0 - <score> - <colour>	19.05	0.750	6.35	0.250	0.64	1.20	6.9 to 16.2	0.275 to 0.640
TMS-SCE - <pack size> - 1 – 2.0 - <score> - <colour>	25.40	1.000	8.46	0.333	0.64	1.54	9.2 to 21.5	0.366 to 0.850
TMS-SCE - <pack size> - 1 1/2 – 2.0 - <score> - <colour>	38.10	1.500	19.05	0.750	0.51	2.75	20.9 to 33.0	0.825 to 1.300
TMS-SCE - <pack size> - 2 – 2.0 - <score> - <colour>	50.80	2.000	25.40	1.000	0.64	4.73	27.9 to 44.9	1.100 to 1.770
TMS-SCE - <pack size> - 2 1/4 – 2.0 - <score> - <colour>	57.15	2.250	19.05	0.750	0.76	4.21	22.3 to 50.8	0.879 to 2.000
TMS-SCE-2X - <pack size> - 3/32 – 2.0 - <score> - <colour>	2.38	0.093	1.17	0.046	0.64	0.20	1.2 to 1.9	0.050 to 0.075
TMS-SCE-2X - <pack size> - 1/8 – 2.0 - <score> - <colour>	3.18	0.125	1.58	0.062	0.64	0.28	1.2 to 2.6	0.044 to 0.105
TMS-SCE-2X - <pack size> - 3/16 – 2.0 - <score> - <colour>	4.76	0.187	2.36	0.093	0.64	0.36	1.7 to 4.0	0.069 to 0.160
TMS-SCE-2X - <pack size> - 1/4 – 2.0 - <score> - <colour>	6.35	0.250	3.18	0.125	0.64	0.59	2.3 to 5.4	0.091 to 0.215
TMS-SCE-2X - <pack size> - 3/8 – 2.0 - <score> - <colour>	9.53	0.375	4.75	0.187	0.64	0.85	3.4 to 8.1	0.137 to 0.320
TMS-SCE-2X - <pack size> - 1/2 – 2.0 - <score> - <colour>	12.70	0.500	6.35	0.250	0.64	1.15	4.6 to 10.7	0.183 to 0.425
TMS-SCE-2X - <pack size> - 3/4 – 2.0 - <score> - <colour>	19.05	0.750	9.53	0.375	0.76	2.06	6.9 to 16.2	0.275 to 0.640







CLASS 1 DATA CLASSIFICATION - SEE POLICY TEC-02-04

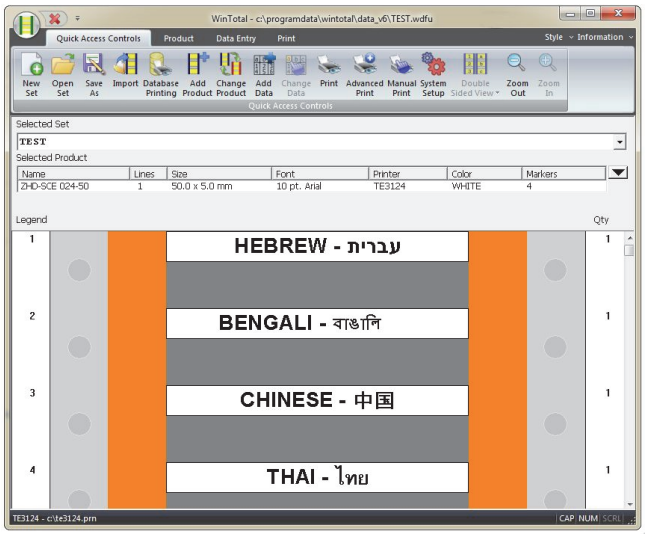


Printer Information

Print quality and print performance can only be guaranteed when specific TE printer and ribbons are used.

The current list of printers and ribbons can be found in TE document 411-121005 'Identification Printer Product Ribbon Matrix'. This document can be found on the 'Printers, Software & Accessories' webpage:

https://www.te.com/usa-en/products/identification-labeling/printers-software-and-accessories/printers.html?tab=pgp-story

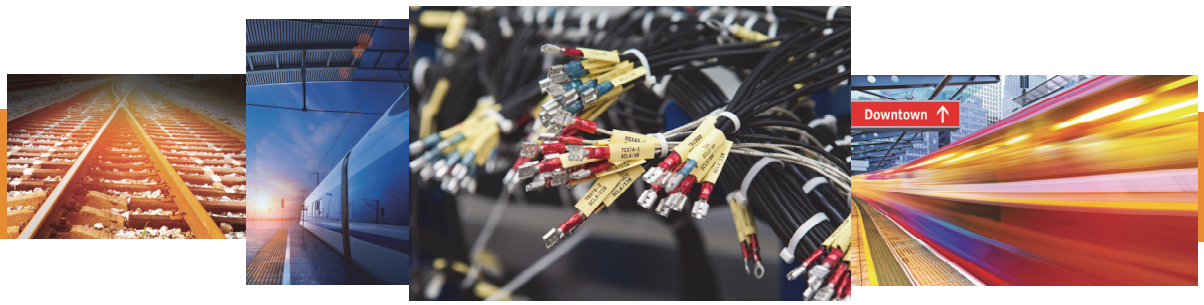


Software

WINTOTAL software, available to download for a 14 day evaluation period from the Identification Printer Software page:

http://www.te.com/wintotal

Contact a TE representative for further information



www.te.com

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