

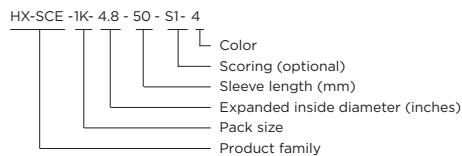
## Introducing HX-SCE Low Fire Hazard Heat-shrinkable Wire Identification Sleeves

Thin wall, low fire hazard, fire resistant, low smoke, low toxicity, radiation cross-linked, UV stabilized polyolefin heat-shrinkable tubing, assembled as cut sleeves organized in a ladder format. Identification of wires and cables by computer-based printing onto sleeves. Suitable for applications where limited fire hazard characteristics are necessary. The low smoke and low flammability toxic fume emissions make this product best used in enclosed spaces such as mass transit, marine and industrial installations. This product is not recommended where strain relief properties are required.

### KEY FEATURES

- Low fire hazard properties, low smoke, low toxicity, low flammability. Meets industry standard BS 6853 (1999) Vehicle Category 1a
- Superb print quality to give crisp clear identification marker sleeve
- Excellent print permanence when tested in demanding industry related fluids
- Choice of printer options
- Sleeve diameters from 2.4 mm to 38.1 mm
- Sleeve length from 12.7 mm to 50.8 mm
- Sleeves are printable on both sides for ease of identification or inclusion of additional information to the marker sleeve
- Shrink ratio of 2:1 - recovers to half of the original diameter

### PART NUMBERING SYSTEM



### TEMPERATURE RATING

- Operating temperature range: -40°C to +105°C (-40°F to +221°F)
- Minimum recovery temperature: +120°C (+248°F)
- Maximum storage temperature: +40°C (+104°F)

### SPECIFICATIONS/APPROVALS

- TE Connectivity:
  - RW 2072
  - TTDS-108
- Military:
  - SAE AS5942 3.4.1. Adherence
  - MIL-STD-202 Method 215
- Industry:
  - BS EN 50343: 2003: Appendix H
  - BS 6853 [1999] - Vehicle Category 1a
  - London Underground Standard 1-085 A3 Fire Safety Performance of Materials
  - No Halogens, P, S, or N sources above trace level

### PRINTING SYSTEM INFORMATION

- Refer to Identification TT Printer Product Ribbon Matrix document '411-121005'

### INDUSTRY STANDARDS

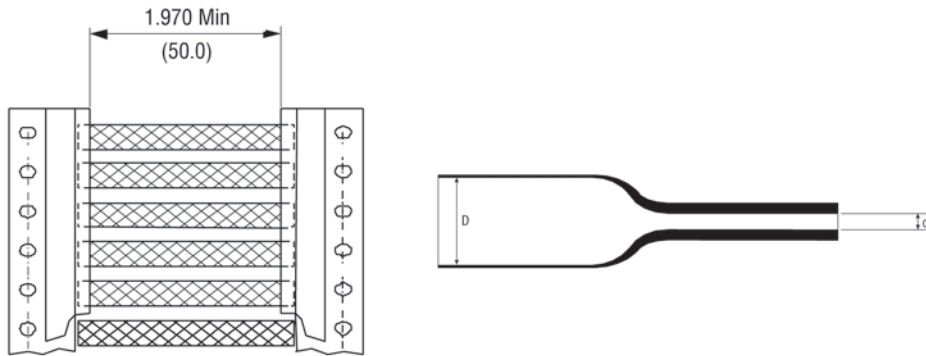
Standard	Title	Application
BS6853	Code of practice for fire precautions in the design and construction of passenger carrying trains.	Interior minor use materials of mass 100g to 500g. Vehicle category 1a.
London Underground Limited 1-085 A3 Fire Safety Performance of Materials	Fire Safety Performance of Materials	Limited, dispersed usage (Abbreviation RS/EQ/I)
NF F 16-101	Railway Rolling Stock Fire behavior choice of materials	Rolling Stock Classification A1
DIN 5510-2	Preventive fire protection in railway vehicles - Part 2: Fire behavior and fire side effects of materials and parts; Classification, Requirements and Test Methods.	Dripping Classification ST2
<sup>1</sup> BS EN 50343:2003: Appendix H	Railway Applications - Rolling Stock - Rules for installation of cabling.	Tests on marking when using heat-shrinkable sleeves

<sup>1</sup>Not including resistance to liquid fuel - not recommended for use in areas where the sleeves may be subject to extended contact from diesel fuel - TE Connectivity D-SCE product range is designed for use in these areas.

[te.com/products/identification-labeling](http://te.com/products/identification-labeling)



ORDERING INFORMATION



AVAILABLE SIZES AND FORMATS

Ordering description	Inside diameter				Recommended use range	
	D (min) as supplied		d (max) after recovery			
	mm	inches	mm	inches	mm	inches
HX-SCE-1K-2.4 - 50- <color>	2.40	0.094	1.19	0.047	1.27 - 1.90	0.050 - 0.075
HX-SCE-1K-3.2 - 50- <color>	3.20	0.126	1.58	0.060	1.765 - 2.66	0.069 - 0.105
HX-SCE-1K-4.8 - 50- <color>	4.80	0.189	2.36	0.090	2.54 - 4.06	0.100 - 0.160
HX-SCE-1K-6.4 - 50- <color>	6.40	0.250	3.18	0.125	3.81 - 5.46	0.150 - 0.215
HX-SCE-1K-9.5 - 50- <color>	9.50	0.375	4.75	0.187	5.59 - 8.12	0.220 - 0.320
HX-SCE-1K-12.7 - 50- <color>	12.70	0.500	6.35	0.250	6.99 - 10.79	0.275 - 0.425
HX-SCE-1K-19.0 - 50- <color>	19.00	0.730	9.53	0.375	10.16 - 16.25	0.400 - 0.640
HX-SCE-1K-25.4 - 50- <color>	25.40	1.000	12.70	0.500	14.29 - 21.59	0.563 - 0.850
HX-SCE-1K-38.1 - 50- <color>	38.10	1.500	19.05	0.750	20.95 - 33.02	0.825 - 1.300

OPTIONS

Prescoring	Perforated score to produce multiple marker sleeves from each HX-SCE sleeve.				
	Nonstandard	Side scored			
	Number of prescores	1 prescore	2 prescores	3 prescores	
	Code	S1	S2	S3	
Package sizes	Standard	1K - 1000 piece packages available for all HX-SCE sizes up to 25.4			
	Nonstandard	2.5K - 2500 pieces available for 4.8 and 6.4 HX-SCE sizes			
		5K - 5000 pieces available for 2.4 and 3.2 HX-SCE sizes			
		250 piece package available for all HX-SCE sizes			
Colors	Standard	Yellow	White		
	Code	4	9		
	Nonstandard	Red	Green	Blue	Orange
	Code	2	5	6	3

Ordering information: Specify product name, pack size, sleeve size, prescore, format and color.  
 Ordering example: HX-SCE-1K-50-S1-4



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**TECHNICAL INFORMATION**

Print Method/Ribbon	Refer to Identification TT Printer Product Ribbon Matrix document '411-121005'
Service Temperature	-40°C to +105°C (-40°F to +221°F)
Minimum Shrink Temperature	136 °C (275°F)
Colors	White or yellow. Other colors available on request.
Flammability	Self-extinguishing - (ASTM D2671 Procedure B). Oxygen Index (BS6853: Pass 34% Min.) - (BS EN ISO 4589-2 [1999]). (AFNOR NF F 16-101 Class 12). Dripping Classification ST2 - (DIN 5510-2)
Smoke	A0-0.017 Max. (BS 6853 [1999] Annex D [D.8.3] Small scale test Smoke Index Determination (IF) Maximum O, Smoke Class F1 - (AFNOR NF F 16-101-1988 Smoke Index)
Toxicity	R < 1 - (BS 6853 [1999] Annex B - AFNOR NF X 70-100 Determination of weighted summation of toxic fume, mass based method) LUL Toxid Fume: No. Halogens, No. P, S or N sources above trace level - 1-085 A3 Fire Safety Performance of Materials; Chemical composition/toxicity Toxicity Index = 0.34 - (CEI 20-37-7-09-1997 Determination of toxicity index of gasses from combustion of organic material
Dielectric Strength	15V/mm minimum.
Water Absorption	11% maximum after 24 hours at 23C (73°F)
Copper Mirror Corrosion	8% maximum after 16 hours of 150 °C (302 °F)
Longitudinal Change	+5% to -10%.
Tensile Strength	7MPa minimum.
Ultimate Elongation	80% minimum.
Secant Modulus	200MPa mimum at 2% elongation.
UV Resistance	Tensile strength >90% & ultimate elongation >40% or original value after 1000 hours (ASTM G53: UVA [100% dry cycle]; UVB [8 hours dry/4 hours wet cycle]).
Print Permanence	ADHERENCE - Meets the requirements of SAE AS5942 (1Kg/50 rubs). FLUID RESISTANCE - Meets the requirements of MIL-STD-202 method 215.

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