

## HX – LFH Heat Shrink Marker Sleeve



HX Low Fire Hazard (LFH) marker sleeves for the identification of wires and cables. Presented as cut sleeves organised in a ladder format.

Manufactured using a specially developed radiation cross-linked material. Formulated to give **Low Fire Hazard** properties, which allow this product to be used in locations where fire may pose a risk to human life, and property. Typical installations include rail, mass transit, and heavy industrial.

HX (LFH) marker sleeves are available as part of a complete printing system. The system comprises specific printers, thermal transfer ribbons and WINTOTAL software.

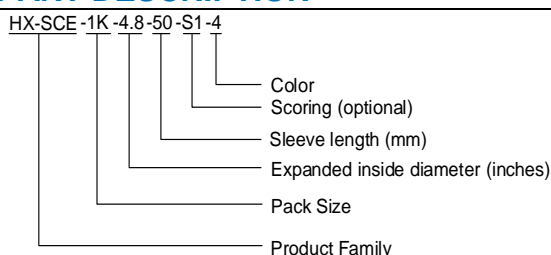
### KEY FEATURES

- Zero Halogen
- Low Toxic Fumes
- Low Smoke
- Self-extinguishing, non-flame propagating
- Low heat release rate
- Resistant to key industrial and rail fluids (defined by RW-2072)
- Excellent resistance to burning  
- typical LOI 39%
- Sleeve diameters from 2.4mm to 38.1mm
- Shrink ratio 2:1

### APPLICATIONS

- Pre-termination Cable Identification
- Particularly suitable for locations with a fire risk to human life or equipment
- Mass transit, Rail, Aerospace, Marine and Industrial

### PART DESCRIPTION



### TEMPERATURE RATING

Operating Temperature Range -55°C to 105°C (-40°F to 221°F)

### ENVIRONMENTAL

Does not contain any declarable or prohibited substances from the UNIFE Railway Industry Substances List

No Halogens, Sulphur, Nitrogen, Phosphorus and Cadmium sources above trace level. The flame retardant used in this product does not contain melamine cyanurate.

Does not promote mould growth (ASTM G21 – zero rating)

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/en/resources/product-compliance.html>

### SPECIFICATIONS / APPROVALS

#### TE Connectivity Standard

- RW-2072

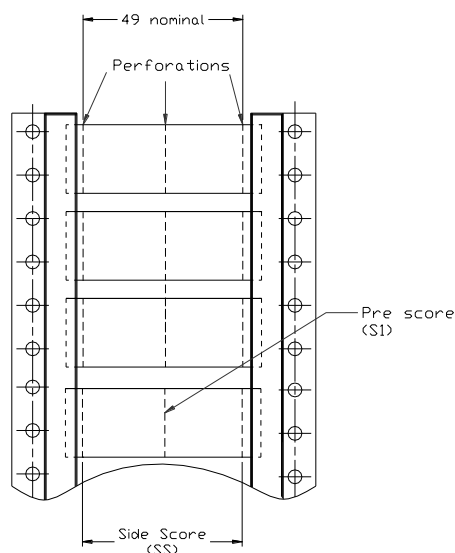
#### Industrial

- London Underground 1-085, Fire Safety Performance of Materials 'Limited, dispersed usage'
- Registered for London Underground Product Acceptance and Registration, revision S1011 A2: <http://www.lu-apr.co.uk>
- EN45545-2 'Hazard Classification 3' Requirement Set R22/R23 – unlimited use for railcar design and operation category
- BS6853 'Vehicle Category Ia'  
Interior minor use materials of mass 100g to 500g
- NF F 16-101 Railway rolling stock, fire behaviour, choice of materials: Classification A1

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-2072.

## ORDERING INFORMATION

### AVAILABLE FORMAT



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### OPTIONS

**Prescoring** Perforated score to produce multiple marker sleeves from each HX-SCE sleeve.

|              |                                 |      |       |
|--------------|---------------------------------|------|-------|
| Standard     | Not scored                      | Code | Blank |
| Non standard | Side scored                     | Code | SS    |
|              | Sided scored with one pre score | Code | SS1   |
|              | 1 Prescore                      | Code | S1    |
|              | 2 Prescores                     | Code | S2    |
|              | 3 Prescores                     | Code | S3    |

**Packaging sizes**

|              |             |   |
|--------------|-------------|---|
| Standard     | 1K -        | 1000 piece packages available for all HX-SCE sizes up to 25.4 |
| Non Standard | 2.5k -      | 2500 pieces available for 4.8 and 6.4 HX-SCE sizes up to 25.4 |
|              | 5k -        | 5000 pieces available for 2.4 and 3.2 HX-SCE sizes            |
|              | <no number> | 250 piece package available for all HX-SCE sizes              |

**Colors**

|              |        |       |      |        |
|--------------|--------|-------|------|--------|
| Standard     | Yellow | White |      |        |
| Code         | 4      | 9     |      |        |
| Non standard | Red    | Green | Blue | Orange |
| Code         | 2      | 5     | 6    | 3      |

Specify product name, pack size, sleeve size, sleeve length (always 50) pre-score (blank if not required) and colour.

Ordering example: HX-SCE-1K-4.8-50-S1-4

| Ordering description   | Inside diameter          |        |                                |        | Recommended wire diameter<br>use range |               |
|--|--------------------------|--------|--------------------------------|--------|--|---------------|
|  | As supplied<br>(minimum) |        | After<br>recovery<br>(Maximum) |        |  |               |
|  | mm                       | inches | mm                             | inches | mm                                     | inches        |
| HX-SCE-1K-2.4-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span>  | 2.4                      | 0.094  | 1.19                           | 0.047  | 1.27 - 1.90                            | 0.050 - 0.075 |
| HX-SCE-1K-3.2-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span>  | 3.2                      | 0.126  | 1.58                           | 0.060  | 1.77 - 2.66                            | 0.069 - 0.105 |
| HX-SCE-1K-4.8-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span>  | 4.8                      | 0.189  | 2.36                           | 0.090  | 2.54 - 4.06                            | 0.100 - 0.160 |
| HX-SCE-1K-6.4-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span>  | 6.4                      | 0.250  | 3.18                           | 0.125  | 3.81 - 5.46                            | 0.150 - 0.215 |
| HX-SCE-1K-9.5-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span>  | 9.5                      | 0.375  | 4.75                           | 0.187  | 5.59 - 8.12                            | 0.220 - 0.320 |
| HX-SCE-1K-12.7-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span> | 12.7                     | 0.500  | 6.35                           | 0.250  | 6.99 - 10.79                           | 0.275 - 0.425 |
| HX-SCE-1K-19.0-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span> | 19.0                     | 0.730  | 9.53                           | 0.375  | 10.16 - 16.25                          | 0.400 - 0.640 |
| HX-SCE-1K-25.4-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span> | 25.4                     | 1.000  | 12.70                          | 0.500  | 14.29 - 21.59                          | 0.563 - 0.850 |
| HX-SCE-38.1-50- <span>&lt;score&gt;</span> - <span>&lt;color&gt;</span>    | 38.1                     | 1.500  | 19.05                          | 0.750  | 20.95 - 33.02                          | 0.825 - 1.300 |

Standard pack size for 38.1 is 250 pieces

### 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 at the TE document centre:

<http://www.te.com/commerce/DocumentDelivery/DDEContent/roller>

### SOFTWARE

Cable Markers are fully supported by WINTOTAL and PrintEasy label printing software, available from the TE product store:

<http://www.te.com/en/general/label-printing-software.html>

Contact a TE representative for further information

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