



Fox-Flo® Low Smoke Zero Halogen Tie-On Cable Labels



ONE SOFTWARE

ONE PRINTER

ONE RIBBON



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Our Fox-Flo® zero halogen labels are flame retardant, halogen free and intended for use in internal and external identification purposes.

The labels are both strong and flexible and can be attached using either standard nylon or stainless-steel cable ties.

Authorised for use for London Underground Limited projects. Suitable for any applications where LSZH is specified. Tested to the Fire Safety Performance of Material requirements of LUL 1-085.

TECHNICAL DATA

| | |
|----------------------|----------------------------------|
| Printing Method | Silver Fox DTP-1 Thermal Printer |
| Thermal Ribbon | Silver Fox TSR3 |
| Material | Silver Fox Fox-Flo® Material |
| Thickness | 1mm |
| RoHS (EU 2002/95/EC) | RoHS Compliant |

PRODUCT TESTING

| Test | Tested | Yellow | White | Blue | Red |
|---|---------------|--------|-------|------|-----|
| BS EN ISO 4589-2:1999 Oxygen Index | Material | ✓ | ✓ | ✓ | ✓ |
| BS 6853:1999 Annex D.8.3 Smoke Emission | Material | ✓ | ✓ | ✓ | ✓ |
| BS 6853:1999 Annex B.1 Toxic Fume | Material | ✓ | ✓ | ✓ | ✓ |
| EN 45545-2 R22 | Material | ✓ | | | |
| Tested to UL 94 Section 8 'Vertical Burning Test' Rating V0 | Material | ✓ | ✓ | ✓ | ✓ |
| IMO FTPC Part 2 Smoke & Toxicity | Material | ✓ | ✓ | | |
| IMO FTPC Part 5 Surface Spread of Flames | Material | ✓ | ✓ | | |
| MIL-STD-810F Method 502.4 Low Temperature 72 hours @ -40°C Followed by manipulation test* | Printed Label | ✓ | ✓ | ✓ | ✓ |
| MIL-STD-202G Method 108A High Temperature 2000 hours @ 70°C to 100°C** | Printed Label | ✓ | ✓ | ✓ | ✓ |
| H ₂ S Sour Gas Exposure (2% H ₂ S) Hydrogen Sulphide | Printed Label | ✓ | ✓ | ✓ | ✓ |
| ISO 4982 Part 3 Method A Cycle 1 UV Weathering 8000 hours | Printed Label | ✓ | ✓ | ✓ | ✓ |
| IEC60068-2-52 Test Kb Salt Mist (Cyclic) Salt Mist Spray | Printed Label | ✓ | ✓ | ✓ | ✓ |
| Chemical / Solvent Resistance | Printed Label | ✓ | | | |

FEATURES & BENEFITS

- Easy to use and apply
- Pre-perforated for rapid removal from roll
- Apply to any cable from OD Ø 10mm - unlimited
- Choice of four colours and three sizes

APPROVALS

- Authorised for use by London Underground Registration No. 1707



* Manipulation of the labels were performed at -40°C at completion of the low temperature test. This took the form of attempting to

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PRODUCT TESTING

Chemical/Solvent Resistance:

Samples of Silver Fox Fox-Flo® labels were printed* at medium speed at medium temperature with Silver Fox DTP-1 thermal printer and TSR3/300 thermal transfer ribbons. Samples were then conditioned for 24 hours at room temperature. In-house testing consisted of 5 cycles of 10-minute immersions in the specified chemical/solvent followed by a 30-minute recovery period. After the final immersion, the samples were then rubbed ten times with a cotton swab dipped in the test fluid. Visual observations on the print quality are listed in the table below:

| Chemical/Solvent | No Rub | After Rub |
|-------------------------------|--------------------|--------------------|
| Methyl Ethyl Keytone (MEK) | No Effect | Loss of Legibility |
| Isopropyl Alcohol | No Effect | No Effect |
| Toluene | Loss of Legibility | Complete Removal |
| Jet Fuel | No Effect | Complete Removal |
| Diesel | No Effect | No Effect |
| Petrol (UK) | Loss of Legibility | Complete Removal |
| SAE 30 Oil | No Effect | No Effect |
| De-ionised Water | No Effect | No Effect |
| 3% Alconox® Detergent | No Effect | No Effect |
| 10% Hydrochloric Acid | No Effect | No Effect |
| 10% NaCl Salt Solution | No Effect | No Effect |
| Mineral Spirits | No Effect | No Effect |
| Alcohol Mix | No Effect | No Effect |
| 10% Sodium Hydroxide Solution | No Effect | No Effect |
| DOT 4 Brake Fluid | Loss of Density | Complete Removal |
| Mineralised Methylated Spirit | No Effect | No Effect |
| Ethylene Glycol | No Effect | No Effect |
| WD-40 | No Effect | Loss of Density |
| Turpentine Substitute | No Effect | Loss of Density |

Use with Silver Fox Labacus Innovator Advanced or Professional software.

Print in conjunction with our Fox-in-a-Box Plug'N'Play thermal printer using the same ribbon as all our other thermal labels.

Print using our DTP – 1/300 Thermal Printer.



Following the above test and using the same procedure, further samples of Silver Fox Fox-Flo® labels were printed* at standard speed at maximum temperature. Visual observations on the print quality are listed in the table below:

*Tested in-house on yellow Fox-Flo labels

| Chemical/Solvent | No Rub | After Rub |
|----------------------------|-----------|------------------|
| Methyl Ethyl Keytone (MEK) | No Effect | Loss of Density |
| Toluene | No Effect | Complete Removal |
| Jet Fuel | No Effect | No Effect |
| Petrol (UK) | No Effect | Complete Removal |
| DOT 4 Brake Fluid | No Effect | Loss of Density |



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ADDITIONAL INFORMATION

The material we chose for our Fox-Flo® range of tie-on labels is the best we could find. This in turn means when you choose Fox-Flo® the performance you expect is the performance you achieve. For added confidence ALL the colours in the Fox-Flo® range have been tested according to the requirements of LUL1-085; BS EN ISO 4589-2:1999 Oxygen Index, BS 6853:1999 Annex D.8.3 Smoke Emission, BS 6853:1999 Annex B.1 Toxic Fume and also tested to UL 94 Section 8 - Vertical Burning Test.

When it comes to UV, we have not just tested to the norm (maybe) 1000 hours, but have stretched our independent testing to the boundaries and beyond. You can be sure Fox-Flo® labels are tough, we have tested for 8000 hours accelerated UV and counting. This roughly equates to 144 - 192 months (12 - 16 years) Northern European climate and 80 - 96 months (6.5 - 8 years) Tropical regions.

Apart from being approved for use on London Underground these labels are also tested according to IMO and so are perfect for use in offshore oil and gas and marine environments.

STORAGE INSTRUCTIONS

| | |
|----------------------|---|
| Storage Instructions | Store between 50° F (10° C) and 77° F (25° C) |
| Conditions | Keep in dark conditions |
| Humidity Resistance | 35% to 65% RH |

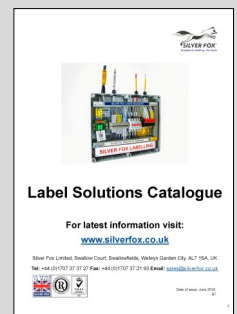
ORDER INFORMATION

| Product Code | Label Dims (mm) | Labels per Roll | Rolls per Pack | Labels per Pack | Colour Options |
|--------------|-----------------|-----------------|----------------|-----------------|---|
| LCLZ2-5010T* | 50 x 10 | 750 | 3 | 2250 | Yellow, White, Green |
| LCLZ1-5015T* | 50 x 15 | 160 | 5 | 800 | Yellow, White, Blue, Red, Orange, Purple, Green |
| LCLZ3-5015T* | 50 x 15 | 480 | 2 | 960 | Yellow, White |
| LCLZ1-5025T* | 50 x 25 | 160 | 3 | 480 | Yellow, White, Blue, Red, Green |
| LCLZ2-7010T* | 70 x 10 | 550 | 3 | 1650 | Yellow, White, Green |
| LCLZ1-7015T* | 70 x 15 | 150 | 5 | 750 | Yellow, White, Blue, Red, Orange, Purple, Green |
| LCLZ3-7015T* | 70 x 15 | 450 | 2 | 900 | Yellow, White |
| LCLZ1-7025T* | 70 x 25 | 150 | 3 | 450 | Yellow, White, Blue, Red, Green |
| LCLZ1-9015T* | 90 x 15 | 140 | 5 | 700 | Yellow, White, Blue, Red, Orange, Purple, Green |
| LCLZ3-9015T* | 90 x 15 | 420 | 2 | 840 | Yellow, White |

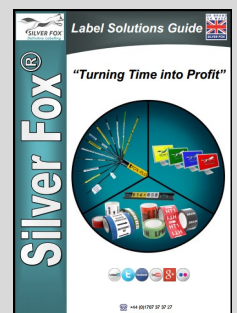
*Specify colour when ordering Please note: colours shown are for indicative purposes only and do not represent the actual colour of the label.

Disclaimer: The information contained in this datasheet is based on data we believe to be reliable and is given for information only and without guarantee and does not constitute a warranty. We are not able to anticipate every set of conditions, so always suggest that users should also satisfy themselves as to the suitability of our products for their particular environment and application and not make any assumptions based on information in this data sheet that is included or omitted. This datasheet supersedes any previous information/datasheet released and is subject to change without notice.

SILVER FOX CATALOGUE



TIP - TIME INTO PROFIT BROCHURE



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| Product Code | Label Dims (mm) | Labels per Roll | Rolls per Pack | Labels per Pack | Colour Options |
|---------------|-----------------|-----------------|----------------|-----------------|----------------|
| LCLZ1-9025T* | 90 x 25 | 140 | 3 | 420 | |
| LCLZ1-11015T* | 110 x 15 | 120 | 5 | 600 | |
| LCLZ3-11015T* | 110 x 15 | 360 | 2 | 720 | |
| LCLZ1-11025T* | 110 x 25 | 120 | 3 | 360 | |
| LCLZ1-7050T* | 70 x 50 | 150 | 2 | 300 | |
| LCLZ1-9050T* | 90 x 50 | 140 | 2 | 280 | |
| LCLZ1-11050T* | 110 x 50 | 120 | 2 | 240 | |
| LCLZ1-13050T* | 130 x 50 | 100 | 2 | 200 | |

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Thorne & Derrick
+44 (0) 191 410 4292
www.powerandcables.com



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