



SBP

Self Laminating Wire and Cable Markers

Technical Datasheet

TTDS-211 Revision 14 - July 2020

SBP is a clear vinyl film with a white thermal transfer printable area. On application, the clear film over-laminates and protects the printed area.

SBP is supplied with a permanent acrylic based adhesive and on a white liner with reference holes for printer sensor detection. The “self laminating” feature protects the printed area from exposure to fluids, moisture and mechanical abrasion.

SBP is UL recognised to PGIS2 for indoor and outdoor use as wrap or flag (tag) in accordance with ANSI/UL 817, Cord Sets and Power-Supply Cords and UL 2238 Certification Requirement Decision (CRD) of the “Standard for Cable Assemblies and Fitting for Industrial Control and Distribution”. For conditions of use see UL file MH61871.

The SBP label solution comprises of a complete identification system with printers, software, ribbons and wide range of standard sizes. The label can be used in “WRAP self-laminating” mode and “FLAG self-laminating” mode down to a diameter of 2.0mm (0.08 inch).

SBP print performance and durability can only be guaranteed when:

- Printed using TE Connectivity printers and ribbons as defined in TE document 411-121005
- Applied on wire & cable using repeatable self-laminated labelling guide 411-121050

Features

- Thermal Transfer Printable
- Over lamination protects the printed area and enables a higher level of print durability
- Range of sizes and colors available (see page 4)
- Variety of label layouts and roll core diameters,
- Useable down to 2.0mm diameter, even on Fluoropolymer wire jackets.

Temperature Rating

- Operating Temperature Range
-40 to 110°C (-40°F to 230°F)
- Minimum Application Temperature 10°C (50°F)

Specifications / Approvals

Industry

UL recognized PGIS2 - file MH61871 - "SBP"

Applications

- Ideal for wire and cable identification in general.
- Excellent conformability to round, irregular or flexible surfaces including flat ribbon cables.
- Small diameter cables and wire (2.0mm / 0.08 inch or greater) in wrap mode or flag mode.
- Industrial, Automotive, Rail, Aerospace and Defense, Electrical

Design for Environment

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

Shelf Life

2 years when following good commercial storage practice detailed below.

Storage

Product should be stored in the original packaging, with any plastic covers which were included during shipping. Store out of direct sunlight in a clean, dry, dust free, environment.

Product should be stored at approximately 22°C and 50% relative humidity.



Typical Label Thickness

- Label (including adhesive): 0.0105 mm / 0.0041 inch
- Liner: 0.080 mm / 0.0031 inch

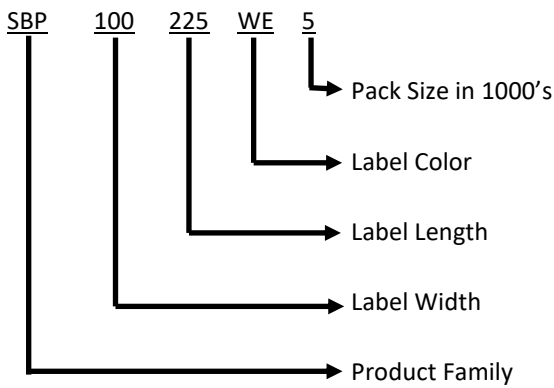
Technical Performance

| | Requirement | Results | |
|---|--|--|-----------------------|
| Print Permanence | | | |
| Marking of Electrical Insulating Materials, SAE AS 5942 | Legible after 50 rubs 1kg weight with an eraser | Pass | |
| Resistance to Solvents, MIL STD 202 Method 215 | Legible after 30 wipes | Pass | |
| Fluid Exposure | | Adhesive | Printed legend |
| • Isopropyl alcohol | Labels to remain on wire and legible / SAE AS 5942 (TE doc 109-121012) | Pass* | Pass |
| • IRM 902 | | Pass | Pass |
| • MIL PRF 23699 | Wrap and flagged installed samples, 24 hours immersion 23°C followed by 20 rubs | Pass | Pass |
| • MIL-H-83282 | | Pass | Pass |
| • Diesel Fuel | | Pass | Pass |
| • Kilfrost DF plus | | Pass | Pass |
| • Tap water | | Pass | Pass |
| • 5% Salt solution | | Pass | Pass |
| • Detergent (1% solution) | | Pass | Pass |
| • Brake fluid | | Pass | Pass |
| • Jet A fuel | | Pass | Pass |
| *Some loosening of flag possible | | | |
| Adhesion to FTM1 (180°) | | Typical Peel force (N/25mm (oz/in.)) | |
| Test surface: | FTM1 (180°) | 20min Dwell | 72hr Dwell |
| • Stainless steel | | 20 (73) | 22 (82) |
| • Glass | | 17 (62) | 21 (75) |
| • Aluminium | | 9 (32) | 18 (64) |
| • Polypropylene | | 9 (32) | 9 (32) |
| • Tufnol | | 15 (53) | 20 (73) |
| • To SBP Label Surface (wrap) | | 17 (64) | 23 (83) |
| • Adhesive to Adhesive (flag) | | 20 (73) | 20 (73) |
| Flammability | | | |
| Average burn time, ASTM D1000 | Burn time less than 10 seconds. | Pass, typical burn time 7second | |
| Burn rate FMVSS 302 | Maximum burn rate 102mm/min. | Pass, typical burn rate 35mm/min | |
| Weatherability | | | |
| Artificial weathering to ASTM G154 | Labels to remain on wire and legible after 3000hr, UV-A and UV-B | Pass, samples remain legible and do not unwrap or unravel* | |
| * Note orange and red may fade under UV, print remains legible. | | | |
| Thermal performance | | | |
| Heat Aging | Labels to remain on wire and legible after 168hr at 90±2°C | Pass, samples remain legible and do not unwrap or unravel | |
| Thermal Cycling | Labels to remain in on wire and legible after 10 cycles of 1hr @ -50°C then 1hr @ 90°C | Pass, samples remain legible and do not unwrap or unravel | |

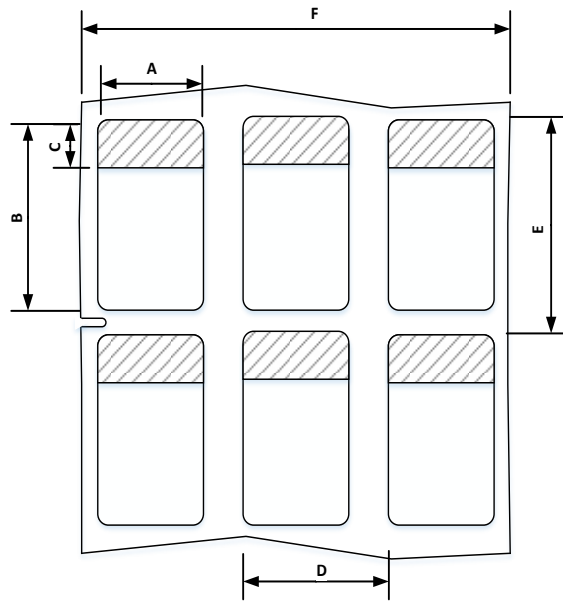
Where possible, TE have tested product as a finished item, including the print. Operational tests are followed by an assessment of mark adherence to validate fit form and function.

Ordering Information

Part Description



Standard Layout with left edge sensor slot



Supplied on 76mm diameter core.

Standard Color Code options for all formats

| | | | |
|----|--------|----|--------|
| BE | Blue | RD | Red |
| GN | Green | WE | White |
| OE | Orange | YW | Yellow |

Available Standard Descriptions

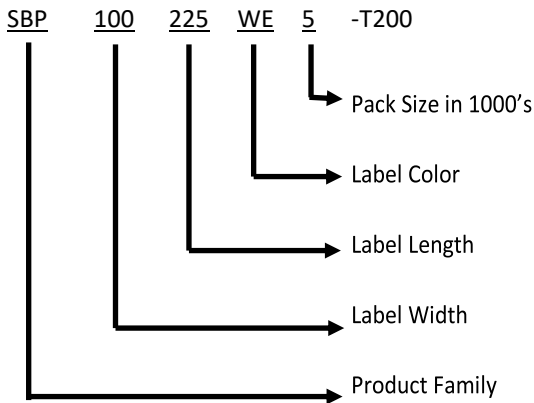
| Product Description | Pack Qty | Label across | Cable O.D. (wrapped) ¹ | | | | (A) Label Width | | (B) Label Height | | (C) Printable Height | | (D) Horizontal Repeat | | (E) Vertical Repeat | | (F) Web Width | |
|---------------------|----------|--------------|-----------------------------------|-------|------|-------|-----------------|-------|------------------|-------|----------------------|-------|-----------------------|-------|---------------------|-------|---------------|-------|
| | | | Min. | Max. | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| | Pieces | Nb | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| SBP050100WE10 | 10,000 | 5 | 2.7 | 0.105 | 5.4 | 0.213 | 12.7 | 0.500 | 25.4 | 1.00 | 8.5 | 0.330 | 16.8 | 0.662 | 31.0 | 1.222 | 86.0 | 3.384 |
| SBP050143WE10 | 10,000 | 5 | 4.0 | 0.159 | 7.6 | 0.298 | 12.7 | 0.500 | 36.5 | 1.437 | 12.7 | 0.500 | 16.8 | 0.662 | 42.2 | 1.661 | 86.0 | 3.384 |
| SBP075094WE10 | 10,000 | 4 | 3.0 | 0.119 | 4.6 | 0.180 | 19.1 | 0.750 | 23.9 | 0.940 | 9.5 | 0.375 | 20.3 | 0.800 | 28.6 | 1.125 | 85.1 | 3.350 |
| SBP080150WE10 | 10,000 | 4 | 4.0 | 0.159 | 8.1 | 0.318 | 20.3 | 0.800 | 38.1 | 1.500 | 12.7 | 0.500 | 22.9 | 0.900 | 44.5 | 1.750 | 94.9 | 3.736 |
| SBP100075WE5 | 5,000 | 2 | 2.0 | 0.080 | 4.1 | 0.159 | 25.4 | 1.000 | 19.1 | 0.750 | 6.4 | 0.250 | 27.9 | 1.100 | 25.4 | 1.000 | 59.3 | 2.336 |
| SBP100143WE5 | 5,000 | 3 | 4.0 | 0.159 | 7.6 | 0.298 | 25.4 | 1.000 | 36.5 | 1.437 | 12.7 | 0.500 | 27.9 | 1.100 | 42.2 | 1.661 | 87.3 | 3.436 |
| SBP100225WE5 | 5,000 | 3 | 6.1 | 0.239 | 12.1 | 0.477 | 25.4 | 1.000 | 57.2 | 2.250 | 19.1 | 0.750 | 27.9 | 1.100 | 66.7 | 2.625 | 87.3 | 3.436 |
| SBP100375WE2.5 | 2,500 | 3 | 8.1 | 0.318 | 22.2 | 0.875 | 25.4 | 1.000 | 95.3 | 3.750 | 25.4 | 1.000 | 27.9 | 1.100 | 101.6 | 4.000 | 87.3 | 3.436 |
| SBP100594WE1 | 1,000 | 3 | 12.1 | 0.477 | 35.9 | 1.413 | 25.4 | 1.000 | 150.9 | 5.940 | 38.1 | 1.500 | 27.9 | 1.100 | 158.8 | 6.250 | 87.3 | 3.436 |
| SBP100743WE1 | 1,000 | 3 | 12.1 | 0.477 | 48.0 | 1.890 | 25.4 | 1.000 | 188.9 | 7.437 | 38.1 | 1.500 | 27.9 | 1.100 | 195.3 | 7.688 | 87.3 | 3.436 |
| SBP190319WE2.5 | 2,500 | 2 | 6.1 | 0.239 | 19.7 | 0.777 | 48.3 | 1.900 | 81.0 | 3.190 | 19.1 | 0.750 | 50.8 | 2.000 | 88.9 | 3.500 | 105.1 | 4.138 |
| SBP190594WE1 | 1,000 | 2 | 12.1 | 0.477 | 35.9 | 1.413 | 48.3 | 1.900 | 151.0 | 5.940 | 38.1 | 1.500 | 50.8 | 2.000 | 158.8 | 6.250 | 105.1 | 4.138 |
| SBP200143WE2.5 | 2,500 | 2 | 4.0 | 0.159 | 7.6 | 0.298 | 50.8 | 2.000 | 36.5 | 1.437 | 12.7 | 0.500 | 50.8 | 2.000 | 42.2 | 1.661 | 107.6 | 4.236 |
| SBP200225WE2.5 | 2,500 | 2 | 6.1 | 0.239 | 12.1 | 0.477 | 50.8 | 2.000 | 57.2 | 2.250 | 19.1 | 0.750 | 50.8 | 2.000 | 66.7 | 2.625 | 107.6 | 4.236 |
| SBP200375WE2.5 | 2,500 | 2 | 8.1 | 0.318 | 22.2 | 0.875 | 50.8 | 2.000 | 95.3 | 3.750 | 25.4 | 1.000 | 53.3 | 2.100 | 101.6 | 4.000 | 110.1 | 4.336 |
| SBP200400WE2.5 | 2,500 | 2 | 8.1 | 0.318 | 24.3 | 0.955 | 50.8 | 2.000 | 101.6 | 4.000 | 25.4 | 1.000 | 53.3 | 2.100 | 108.0 | 4.250 | 110.1 | 4.336 |
| SBP200743WE1 | 1,000 | 2 | 12.1 | 0.477 | 48.0 | 1.890 | 50.8 | 2.000 | 188.9 | 7.437 | 38.1 | 1.500 | 53.3 | 2.100 | 195.3 | 7.688 | 110.1 | 4.336 |

¹see document 411-121050 for recommended wire diameter for flag self lamination application.

Other sizes, colors and pack quantities available, contact TE for more details.

Ordering Information

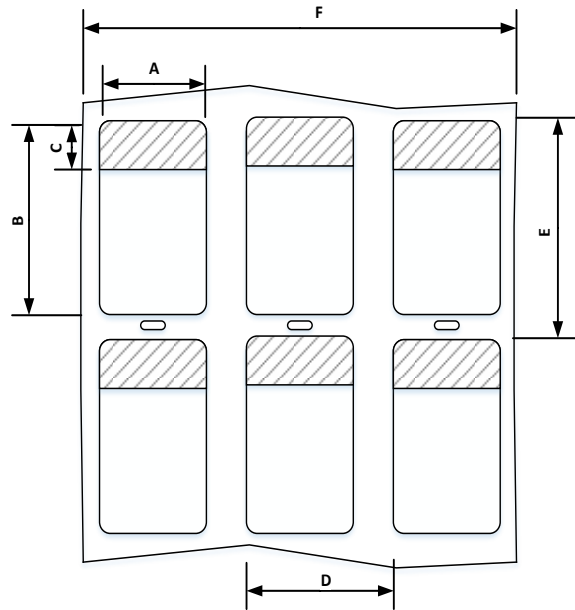
Part Description



Standard Color Code options for all formats

| | | | |
|----|--------|----|--------|
| BE | Blue | RD | Red |
| GN | Green | WE | White |
| OE | Orange | YW | Yellow |

T200 Layout with center sensor slot



Supplied on 25.4mm diameter core.

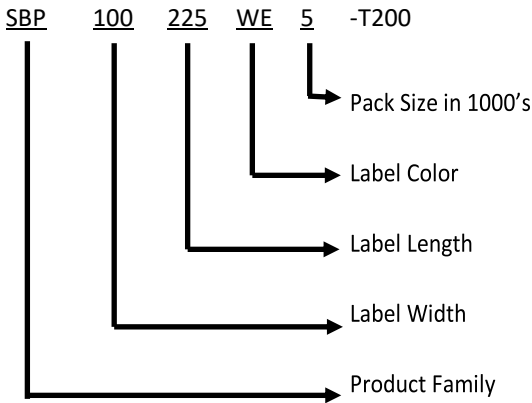
Available T200 Descriptions

| Product Description | Pack Qty | Label across | Cable O.D. (wrapped) ¹ | | | | (A) Label Width | | (B) Label Height | | (C) Printable Height | | (D) Horizontal Repeat | | (E) Vertical Repeat | | (F) Web Width | |
|---------------------|----------|--------------|-----------------------------------|-------|------|-------|-----------------|-------|------------------|-------|----------------------|-------|-----------------------|-------|---------------------|-------|---------------|-------|
| | | | Min. | inch | Max. | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| SBP050100WE5-T200 | 5,000 | 5 | 2.7 | 0.105 | 5.4 | 0.213 | 12.7 | 0.500 | 25.4 | 1.00 | 8.5 | 0.330 | 16.8 | 0.662 | 31.0 | 1.222 | 86.0 | 3.384 |
| SBP050143WE5-T200 | 5,000 | 5 | 4.0 | 0.159 | 7.6 | 0.298 | 12.7 | 0.500 | 36.5 | 1.437 | 12.7 | 0.500 | 16.8 | 0.662 | 42.2 | 1.661 | 86.0 | 3.384 |
| SBP080150WE5-T200 | 5,000 | 4 | 4.0 | 0.159 | 8.1 | 0.318 | 20.3 | 0.800 | 38.1 | 1.500 | 12.7 | 0.500 | 22.9 | 0.900 | 44.5 | 1.750 | 94.9 | 3.736 |
| SBP100143WE2.5-T200 | 2,500 | 3 | 4.0 | 0.159 | 7.6 | 0.298 | 25.4 | 1.000 | 36.5 | 1.437 | 12.7 | 0.500 | 27.9 | 1.100 | 42.2 | 1.661 | 87.3 | 3.436 |
| SBP100225WE2.5-T200 | 2,500 | 3 | 6.1 | 0.239 | 12.1 | 0.477 | 25.4 | 1.000 | 57.2 | 2.250 | 19.1 | 0.750 | 27.9 | 1.100 | 66.7 | 2.625 | 87.3 | 3.436 |
| SBP100375WE1-T200 | 1,000 | 3 | 8.1 | 0.318 | 22.2 | 0.875 | 25.4 | 1.000 | 95.3 | 3.750 | 25.4 | 1.000 | 27.9 | 1.100 | 101.6 | 4.000 | 87.3 | 3.436 |
| SBP100594WE0.5-T200 | 500 | 3 | 12.1 | 0.477 | 35.9 | 1.413 | 25.4 | 1.000 | 150.9 | 5.940 | 38.1 | 1.500 | 27.9 | 1.100 | 158.8 | 6.250 | 87.3 | 3.436 |
| SBP200143WE1-T200 | 1,000 | 2 | 4.0 | 0.159 | 7.6 | 0.298 | 50.8 | 2.000 | 36.5 | 1.437 | 12.7 | 0.500 | 50.8 | 2.000 | 42.2 | 1.661 | 107.6 | 4.236 |
| SBP200225WE1-T200 | 1,000 | 2 | 6.1 | 0.239 | 12.1 | 0.477 | 50.8 | 2.000 | 57.2 | 2.250 | 19.1 | 0.750 | 50.8 | 2.000 | 66.7 | 2.625 | 107.6 | 4.236 |
| SBP200375WE1-T200 | 1,000 | 2 | 8.1 | 0.318 | 22.2 | 0.875 | 50.8 | 2.000 | 95.3 | 3.750 | 25.4 | 1.000 | 53.3 | 2.100 | 101.6 | 4.000 | 110.1 | 4.336 |
| SBP200743WE0.5-T200 | 500 | 2 | 12.1 | 0.477 | 48.0 | 1.890 | 50.8 | 2.000 | 188.9 | 7.437 | 38.1 | 1.500 | 53.3 | 2.100 | 195.3 | 7.688 | 110.1 | 4.336 |

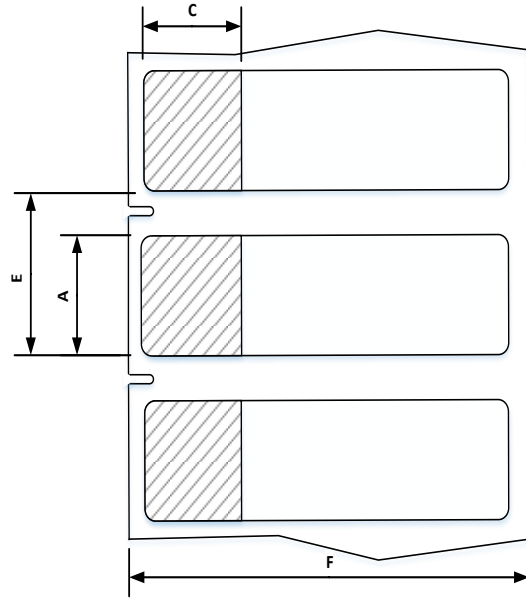
¹see document 411-121050 for recommended wire diameter for flag self lamination application.

Ordering Information

Part Description



Horizontal Layout



Supplied on 25.4 and 76mm diameter core.
Also available as -T200 with center sensor holes.

Standard Color Code options for all formats

| | | | |
|----|--------|----|--------|
| BE | Blue | RD | Red |
| GN | Green | WE | White |
| OE | Orange | YW | Yellow |

Available Horizontal Descriptions

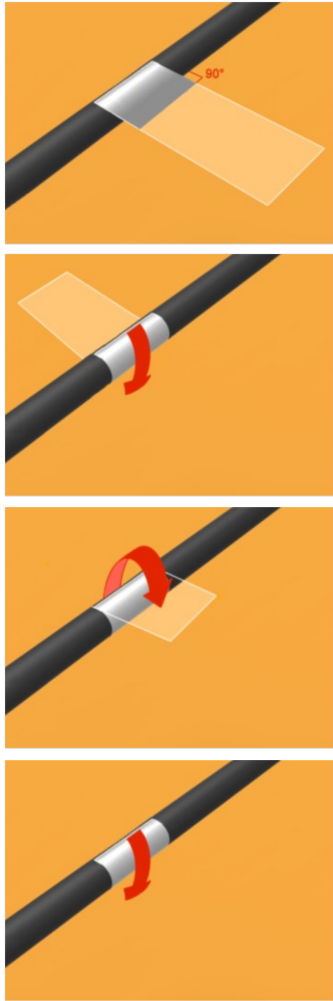
| Product Description | Pack Qty | Label across | Cable O.D. (wrapped) ¹ | | | | (A) Label Width | | (B) Label Height | | (C) Printable Height | | (D) Horizontal Repeat | | (E) Vertical Repeat | | (F) Web Width | |
|---------------------|----------|--------------|-----------------------------------|-------|------|-------|-----------------|-------|------------------|-------|----------------------|-------|-----------------------|------|---------------------|-------|---------------|-------|
| | | | Min. | Max. | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| | Pieces | Nb | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| SBPH100375WE5-2.5 | 2,500 | 1 | 8.1 | 0.318 | 22.2 | 0.875 | 25.4 | 1.000 | 95.3 | 3.750 | 25.4 | 1.000 | N/A | N/A | 28.6 | 1.250 | 100.3 | 3.950 |
| SBPH100375WE1-T200 | 1,000 | 1 | 8.1 | 0.318 | 22.2 | 0.875 | 25.4 | 1.000 | 95.3 | 3.750 | 25.4 | 1.000 | N/A | N/A | 28.6 | 1.250 | 100.3 | 3.950 |

¹see document 411-121050 for recommended wire diameter for flag self lamination application.

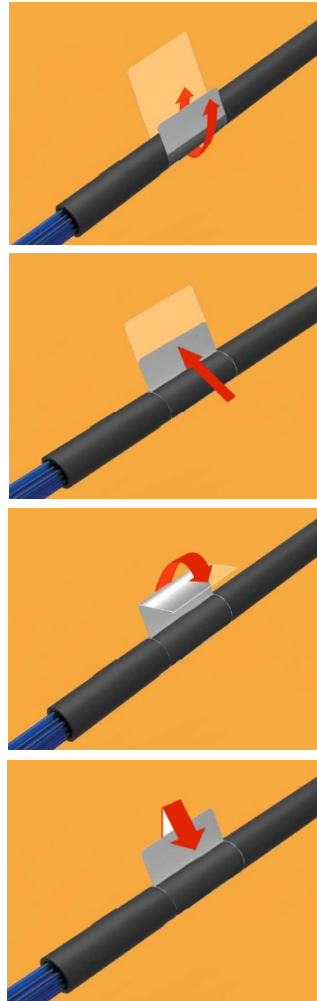
Self-laminating in WRAP & FLAG modes

For full details see Installation Instruction 411-121050

WRAP self lamination mode



FLAG self lamination mode



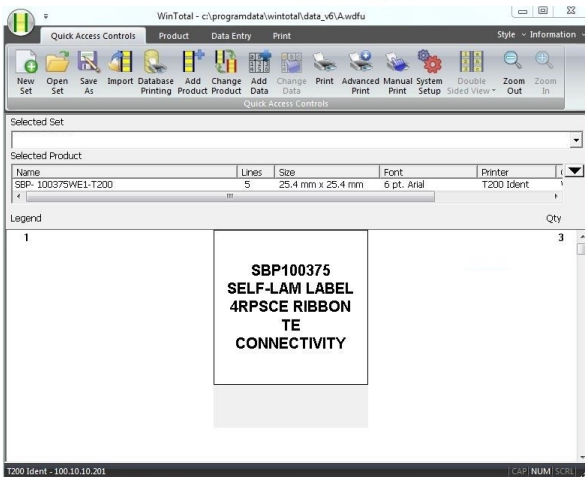


Printer Information

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 in 'Access Our Tools':

<http://www.te.com/usa-en/utilities/access-product-tools>



Software

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

<http://www.te.com/usa-en/products/identification-labeling/printers-software/printing-software.html?tab=pgp-story>

Print Easy software also available

Contact a TE representative for further information



www.te.com/rail

TE Connectivity, TE Connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2018 TE Connectivity Ltd. family of companies All Rights Reserved.



单击下面可查看定价，库存，交付和生命周期等信息

[>>TE Connectivity\(泰科\)](#)