# WV and EET V-9 white PVC Labels

## Technical Datasheet

TTDS-207 Revision 3 - February 2021

**WV and EET V-9 are thermal transfer printable, flexible, white PVC labels with a permanent acrylic adhesive, ideal for rounded, irregular or bendable surfaces. They are also suitable for wire and cable identifications in flag mode, as shown in TE Connectivity Self-Laminating Flag Labelling User Guide 411-121050.**

WV and EET V-9 PVC labels are designed to withstand oil, mild cleaning agents, water and climatic influences. The labels can be used for rack, panel and rating plate applications as well. Print performance and durability can only be guaranteed when printed using TE Connectivity printers, ribbons and software, as shown in TE Connectivity Identification Printer Product Ribbon Matrix 411-121005.

WV and EET V9 PVC labels are available as part of a complete identification system. The system comprises specific printers, thermal transfer ribbons and WINTOTAL and Print Easy software.

**TE** connectivity

# WV AND EET V-9 WHITE PVC LABELS

## Features

- Thermal transfer printable
- Permanent acrylic adhesive
- Flexible Identification on irregular surfaces
- Good adhesion to low energy surfaces (e.g. Polypropylene)

## Temperature Rating

- Service Temperature

  -40°C to +110°C ( -40°F to +230°F)

- Min. Application Temperature: 0°C (32°F)

## Applications

- Excellent conformability to round, irregular or flexible surfaces
- Electronic component labeling
- Industrial and Commercial applications
- Aerospace and Defence applications

## 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

## Specifications / Approvals

**Industry**   UL recognized PGJI2 / PGJI8 - file MH17292 - "**WV & EET-V9**" for standard application

UL recognized PGIS2 - file MH61871 - "**WV & EET-V9**" for cable application

## 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 not be stored outside of the designed storage temperature, which is 20 to 25 °C (68°F to 77°F), 40 to 50 % RH.

## Typical Label Thickness

- Label (including adhesive):   0.104 mm / 0.0041 inch
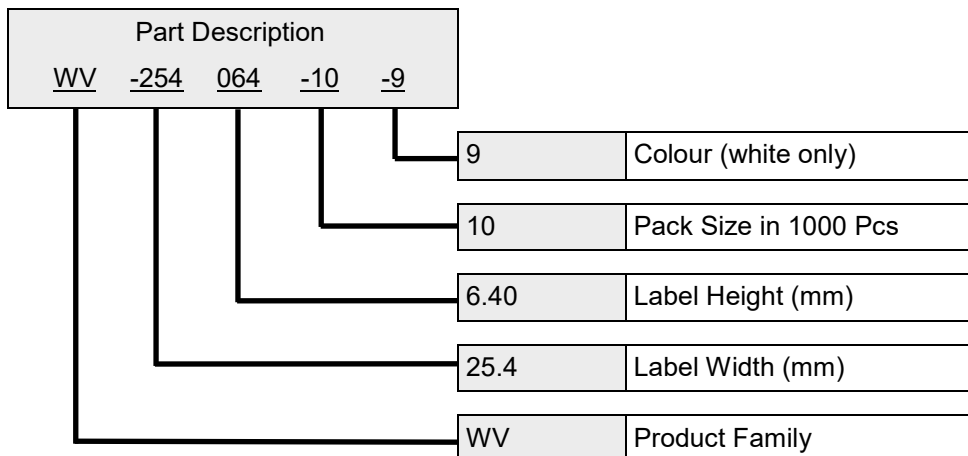- Liner:   0.058 mm / 0.0023 inch

## 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 202G Method 215K | Legible after 30 wipes | Pass |

| **Fluid Exposure** | | Adhesive | Printed legend |
|---|---|---|---|
| • IPA Isopropyl Alcohol | Labels to remain legible / SAE AS 5942 (TE doc 109-121012) | Pass | Pass |
| • IRM 902 | | Pass | Pass |
| • MIL PRF 23699 | 24 hours immersion at 23°C followed by 20 rubs with cloth, minimum print contrast 3*, legible | Pass | Pass |
| • MIL-H-83282 | | Pass | Pass |
| • Diesel Fuel | *Print contrast as defined in TE doc. 411-121002 | Pass | Pass |
| • Kilfrost DF plus | | Pass | Pass |
| • Tap water | | Pass | Pass |
| • 5%  Salt solution | | Pass | Pass |
| • Detergent (1% solution) | | Pass | Pass |
| | | Pass | Pass |

**Adhesion** to FTM1 (180°)

**Typical Peel force (N/25mm (oz/in.))**

| Test surface: | FTM1 (180°) | 20min Dwell | 72hr Dwell |
|---|---|---|---|
| • Stainless steel | | 11 (40.2) | 12 (42.4) |
| • Glass | | 15 (54.0) | 20 (72.9) |
| • Aluminium | | 12 (42.4) | 15 (54.0) |
| • Polypropylene | | 8 (31.2) | 10 (37.8) |
| • Epoxy painted surface | | 12 (42.4) | 34 (124.2) |

| **Flammability** | | |
|---|---|---|
| Average burn time, ASTM D1000 | Burn time less than 10 seconds. | Pass, typical burn time 5 seconds |
| Burn rate FMVSS 302 | Maximum burn rate 102 mm/min. | Pass |

| **Weatherability** | | |
|---|---|---|
| Artificial weathering to ASTM D154 | Labels to remain legible after 720hr, UV-A and UV-B | Pass, samples remain legible |

## Part Description

WV -254 064 -10 -9

| | |
|---|---|
| 9 | Colour (white only) |
| 10 | Pack Size in 1000 Pcs |
| 6.40 | Label Height (mm) |
| 25.4 | Label Width (mm) |
| WV | Product Family |

Specify product name, Label width (mm), Label height (mm), Pack size, Colour (only available in white)
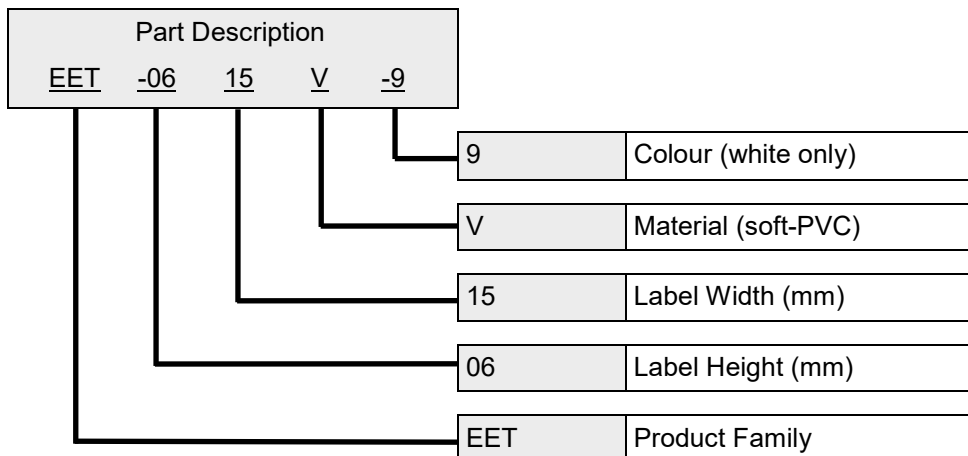
## Ordering Information - WV
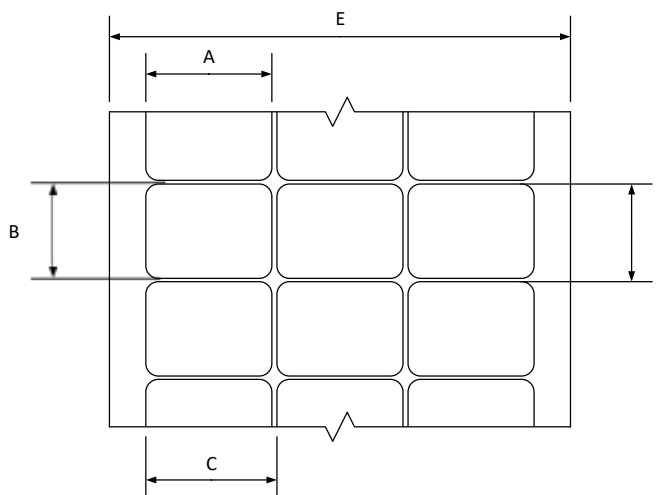
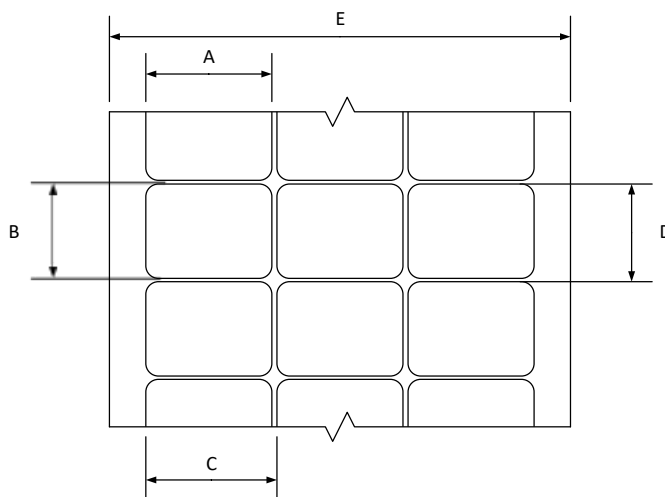| Ordering Description | Quantity per Roll | Labels Across | Label Width A (mm) (inches) | | Label Height B (mm) (inches) | | Horizontal Repeat C (mm) (inches) | | Vertical Repeat D (mm) (inches) | | Web Width E (mm) (inches) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WV-089047-10-9 | 10,000 | 5 | 8.90 | 0.350 | 4.70 | 0.185 | 11.40 | 0.450 | 7.90 | 0.313 | 60.6 | 2.386 |
| WV-165051-25-9 | 25,000 | 4 | 16.50 | 0.650 | 5.10 | 0.200 | 17.80 | 0.700 | 8.30 | 0.325 | 75.8 | 2.990 |
| WV-165102-10-9 | 10,000 | 5 | 16.50 | 0.650 | 10.20 | 0.400 | 19.10 | 0.750 | 13.80 | 0.545 | 99.1 | 3.900 |
| WV-178095-10-9 | 10,000 | 4 | 17.80 | 0.700 | 9.50 | 0.374 | 19.10 | 0.750 | 12.70 | 0.500 | 80.9 | 3.190 |
| WV-229064-10-9 | 10,000 | 3 | 22.90 | 0.900 | 6.40 | 0.250 | 28.60 | 1.125 | 9.50 | 0.374 | 86.0 | 3.390 |
| WV-254064-10-9 | 10,000 | 3 | 25.40 | 1.000 | 6.40 | 0.250 | 27.90 | 1.100 | 9.50 | 0.374 | 87.3 | 3.436 |
| WV-254097-10-9 | 10,000 | 3 | 25.40 | 1.000 | 9.70 | 0.380 | 27.90 | 1.100 | 12.70 | 0.500 | 87.4 | 3.440 |
| WV-254127-10-9 | 10,000 | 3 | 25.40 | 1.000 | 12.70 | 0.500 | 27.90 | 1.100 | 16.90 | 0.666 | 87.4 | 3.440 |
| WV-254254-10-9 | 10,000 | 3 | 25.40 | 1.000 | 25.40 | 1.000 | 27.90 | 1.100 | 28.60 | 1.125 | 87.4 | 3.440 |
| WV-318064-10-9 | 10,000 | 1 | 31.80 | 1.250 | 6.40 | 0.250 | N/A | N/A | 9.50 | 0.374 | 37.9 | 1.490 |

PAGE 4

## Ordering Information

| Ordering Description | Quantity per Roll | Labels Across | Label Width A (mm) (inches) | Label Height B (mm) (inches) | Horizontal Repeat C (mm) (inches) | Vertical Repeat D (mm) (inches) | Web Width E (mm) (inches) |
|---|---|---|---|---|---|---|---|
| WV-381064-10-9 | 10,000 | 1 | 38.10  1.500 | 6.40  0.250 | N/A  N/A | 9.50  0.374 | 44.5  1.750 |
| WV-381127-5-9 | 5,000 | 2 | 38.10  1.500 | 12.70  0.500 | 44.20  1.738 | 15.90  0.625 | 88.2  3.472 |
| WV-381191-5-9 | 5,000 | 2 | 38.10  1.500 | 19.10  0.750 | 43.20  1.700 | 22.20  0.875 | 87.6  3.450 |
| WV-445102-5-9 | 5,000 | 1 | 44.50  1.750 | 10.20  0.400 | N/A  N/A | 12.70  0.500 | 50.4  1.986 |
| WV-445445-2-9 | 2,000 | 1 | 44.50  1.750 | 44.50  1.750 | N/A  N/A | 47.60  1.875 | 50.4  1.986 |
| WV-508095-5-9 | 5,000 | 1 | 50.80  2.000 | 9.50  0.374 | N/A  N/A | 12.70  0.500 | 57.2  2.250 |
| WV-508127-5-9 | 5,000 | 1 | 50.80  2.200 | 12.70  0.500 | N/A  N/A | 15.90  0.625 | 56.9  2.240 |
| WV-508254-5-9 | 5,000 | 1 | 50.80  2.200 | 25.40  1.000 | N/A  N/A | 28.60  1.125 | 57.2  2.250 |
| WV-610419-2.5-9 | 2,500 | 1 | 61.00  2.400 | 41.90  1.650 | N/A  N/A | 45.50  1.792 | 67.3  2.650 |
| WV-699191-5-9 | 5,000 | 1 | 69.90  2.750 | 19.10  0.750 | N/A  N/A | 23.30  0.917 | 76.2  3.000 |
| WV-699254-5-9 | 5,000 | 1 | 69.90  2.750 | 25.40  1.000 | N/A  N/A | 28.60  1.125 | 76.2  3.000 |
| WV-762381-2.5-9 | 2,500 | 1 | 76.20  3.000 | 38.10  1.500 | N/A  N/A | 41.30  1.625 | 82.3  3.240 |
| WV-762508-2.5-9 | 2,500 | 1 | 76.20  3.000 | 50.80  2.000 | N/A  N/A | 54.00  2.125 | 82.6  3.240 |
| WV-101508-2.5-9 | 2,500 | 1 | 101.60  4.000 | 50.80  2.000 | N/A  N/A | 54.60  2.150 | 104.1  4.100 |
| WV-101635-2.5-9 | 2,500 | 1 | 101.60  4.000 | 63.50  2.500 | N/A  N/A | 66.70  2.625 | 107.7  4.240 |

Specify product name, Label Height (mm), Label Width (mm), Material, Colour (only available in white)

## Ordering Information - EET V-9



| Ordering Description | Quantity per Roll | Labels Across | Label Width A (mm) (inches) | | Label Height B (mm) (inches) | | Horizontal Repeat C (mm) (inches) | | Vertical Repeat D (mm) (inches) | | Web Width E (mm) (inches) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EET-0615V-9 | 10,000 | 6 | 15.00 | 0.590 | 6.40 | 0.250 | 16.80 | 0.661 | 9.55 | 0.376 | 105 | 4.134 |
| EET-0623V-9 | 10,000 | 3 | 22.86 | 0.900 | 6.40 | 0.250 | 25.76 | 1.014 | 9.95 | 0.392 | 85 | 3.346 |
| EET-0818V-9 | 10,000 | 4 | 18.00 | 0.709 | 8.00 | 0.315 | 21.00 | 0.827 | 13.00 | 0.512 | 105 | 4.134 |
| EET-1056V-9 | 3,000 | 1 | 56.00 | 2.205 | 9.50 | 0.374 | N/A | N/A | 12.70 | 0.500 | 70 | 2.756 |
| EET-1325V-9 | 10,000 | 3 | 25.40 | 1.000 | 12.70 | 0.500 | 27.00 | 1.063 | 16.90 | 0.665 | 85 | 3.346 |
| EET-1938V-9 | 3,000 | 2 | 38.10 | 1.500 | 19.05 | 0.750 | 40.90 | 1.610 | 23.05 | 0.907 | 85 | 3.346 |
| EET-2551V-9 | 3,000 | 1 | 50.80 | 2.000 | 25.40 | 1.000 | N/A | N/A | 28.20 | 1.110 | 56 | 2.205 |
| EET-5176V-9 | 3,000 | 1 | 76.20 | 3.000 | 50.80 | 2.000 | N/A | N/A | 54.40 | 2.142 | 80 | 3.150 |
| EET-6090V-9 | 3,000 | 1 | 90.00 | 3.543 | 60.00 | 2.362 | N/A | N/A | 63.50 | 2.500 | 105 | 4.134 |

## Ordering Information - EET V-9 Continuous Roll

| Ordering Description | Roll Width (mm) | Printable Width (mm) | Core Diameter (mm) | Roll Length (m) | Quantity per pack |
|---|---|---|---|---|---|
| EET-M0080V-9 | 85.00 | 80.00 | 76.20 | 125.00 | continuous |
| EET-M0100V-9 | 105.00 | 100.00 | 76.20 | 125.00 | continuous |



ROLL WIDTH
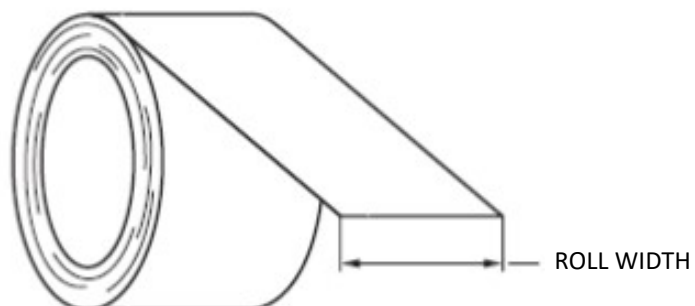
## Printer Information

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':

[Identification Printer Product Ribbon Matrix](#)
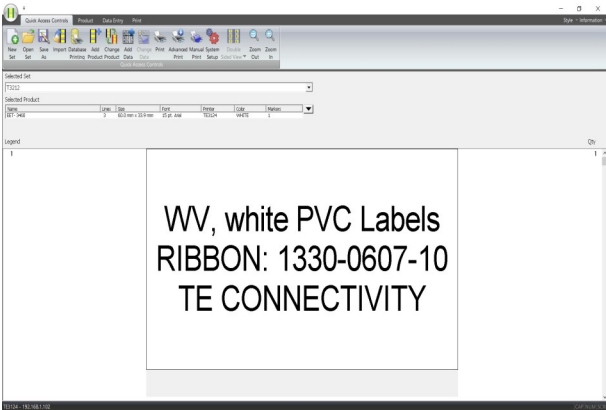
## Software

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

[WINTOTAL trial software](#)

Print Easy software also available

Contact a TE representative for further information

**www.te.com/rail**

INDUSTRIAL  /// TTDS-207 TECHNICAL DATA SHEET