

HIGH VOLTAGE BUSBAR INSULATION TAPES WILDLIFE AND ASSET PROTECTION PRODUCTS

KEY FEATURES

- Compatible with TE's Raychem medium voltage insulation enhancement systems
- Easy to apply using readily available equipment
- Indoor and outdoor use
- Anti-tracking properties
- Continues operating temperature up to 90°C
- Versatile and flexible at temperatures as low as -40°C.

TE Connectivity's (TE) Raychem high voltage busbar insulation tapes HVBT are heat shrink, adhesive-coated tapes which provide insulation enhancement and protection against accidentally induced flashovers. TE's Raychem HVBT tapes are designed to combine the integrity of a heat shrink tubing with the versatility of wraparound products.

The HVBT tapes are quick and easy to install. Upon application of heat the tapes shrink and the adhesive lining melts, amalgamating the overlapping layers to produce a complete lap to lap seal. A single layer of the HVBT tape, two-thirds overlapped, will provide AC voltage withstand (flashover protection) to at least 17.5 kV increasing to 36 kV if a second layer is applied.

Although the HVBT tapes will adhere to themselves and other insulating materials, they will not adhere to metal or porcelain, allowing easy removal for maintenance.

The HVBT tapes offer a simple and effective solution to the problems of retrofit insulation of busbars, particularly where existing equipment cannot be dismantled. They can be used for indoor and outdoor applications and are easily installed over a wide variety of shapes, including complex connections.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

High Voltage Busbar Insulation Tapes HVBT

TE's wildlife and asset protection products and systems of tubes, tapes, sheets, pre-formed covers and barriers provide a proven, cost-effective and easy-to-install solution to bird, animal and weather related outages.



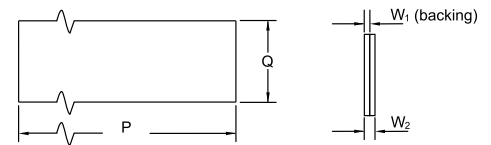
| PRODUCT PERFORMANCE | | |
|--|-------------------------------|--|
| Key Material Properties | Test Method | Required |
| Physical | | |
| Resistance to Transformer Oil - Tensile Strength - Ultimate Elongation | VDE 0370 | 168 hrs. at 23°C, 10 MPa (1450 psi) min., 300% min |
| Low Temperature Flexibility 4hrs at -40°C | ASTM D2671, Procedure D | No Cracking |
| Accelerated Ageing 168 hrs at 120°C Tensile Strength | ASTM D638 | 10MPa (1450 psi) |
| Accelerated Ageing 168 hrs at 120°C Ultimate Elongation | ASTM D638 | 300% min. |
| Electrical | | |
| Dielectric Strength | ASTM D149, IEC 243 | 130 kV/cm (330 V/mil) |
| Volume Resistivity | ASTM D257, IEC 93 | 1 x 10 ¹³ Ohm cm min. |
| Smoke Index | NES 711 | Less than 50 |
| Acid gas generation | TE's Raychem PPS 3010 4.23 | Less than 3% by weight |

Note: The above information refers to the backing material only.

| PRODUCT PERFORMANCE | | |
|---------------------|---------------------------------------|-----------------------------------|
| Product Description | Rectangular Busbar Width: inches (mm) | Length needed per meter of busbar |
| HVBT-1-R-01(B8) | 1 (25) | 33 (10.0) |
| HVBT-2-R-01(B4) | 2 (50) | 25 (7.6) |
| HVBT-2-R-01(B4) | 3 (75) | 38 (11.4) |
| HVBT-2-R-01(B4) | 4 (100) | 52 (15.6) |
| HVBT-2-R-01(B4) | 6 (150) | 82 (25) |
| HVBT-4-R-01(B4) | 8 (200) | 52 (15.6) |

| PRODUCT PERFORMANCE | | |
|---------------------|------------------------------------|-----------------------------------|
| Product Description | Round Busbar Diameter: inches (mm) | Length needed per meter of busbar |
| HVBT-1-R-01(B8) | 0.5 (12) | 16.5 (5) |
| HVBT-2-R-01(B4) | 1 (25) | 16.5 (5) |
| HVBT-2-R-01(B4) | 2 (50) | 33 (10) |
| HVBT-2-R-01(B4) | 3 (75) | 55 (16.7) |
| HVBT-4-R-01(B4) | 4 (100) | 33 (10) |

| PRODUCT SELECTION | | | | | |
|---------------------|-------------------|--------------------|--------------------|--------------------|-------------------------------|
| Product Description | Dimensions | | | | |
| | Q a min. (inches) | W1 a min. (inches) | W1 b min. (inches) | W2 b min. (inches) | UOM: Roll of length, P (feet) |
| HVBT-1-R-01 (8) | 1 | 0.014 | 0.022 | 0.034 | 25 |
| HVBT-2-R-01 (4) | 2 | 0.014 | 0.022 | 0.034 | 24 |
| HVBT-4-R-01 (2) | 4 | 0.014 | 0.022 | 0.034 | 25 |



| TECHNICAL REPORT | |
|------------------|-----------------------------------|
| EDR-5466 | HVBT Product Qualification Report |

| INSTALLATION INSTRUCTIONS | |
|---------------------------|---|
| EPP-0619-8/98 | Installation Instructions for High Voltage Busbar Tape (HVBT) |

te.com/energy

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