

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
Water Absorption (24hrs at 23°C)	ASTM D570	0.2% max
Low Temperature Flexibility 4hrs at -40°C	ASTM D2671	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 (2.0mm thickness)	ASTM D149	>130 kV/cm (330 V/mil)
Volume Resistivity	ASTM D257	1 x 10 ¹³ Ohm cm min.

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

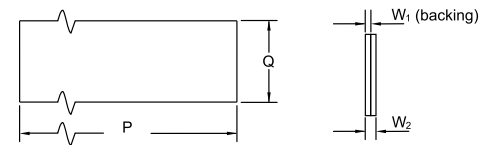
ROUNDED BUSBARS			
Ratec Voltage (kV)	Phase-Phase (mm)	Phase-Ground (mm)	IEC 71-2 air clearance (mm)
12	55	65	120
17.5	70	85	160
24	95	125	220
36	150	205	320

RECTANGULAR BUSBARS			
Ratec Voltage (kV)	Phase-Phase (mm)	Phase-Ground (mm)	IEC 71-2 air clearance (mm)
12	65	75	120
17.5	85	105	160
24	115	150	220
36	200	285	320

PRODUCT PERFORMANCE		
Product Description	Rectangular Busbar Width: mm (inches)	Length of HVBT required per meter of Rectangular Busbar: M (yards)
HVBT-12-A(B20)	25 (1)	10 (11)
HVBT-14-A(B10)	50 (2)	7.6 (8.3)
HVBT-14-A(B10)	75 (3)	11.4 (12.5)
HVBT-14-A(B10)	100 (4)	15.6 (17)
HVBT-14-A(B10)	150 (6)	25 (27.3)
HVBT-16-A(B10)	200 (8)	15.6 (17)

PRODUCT PERFORMANCE		
Product Description	Round Busbar Diameter: mm (inches)	Length of HVBT required per meter of Round Busbar: M (yards)
HVBT-12-A(B20)	12 (0.5)	5 (5.5)
HVBT-14-A(B10)	25 (1)	5 (5.5)
HVBT-14-A(B10)	50 (2)	10 (11)
HVBT-14-A(B10)	75 (3)	16.7 (18.2)
HVBT-16-A(B10)	100 (4)	10 (11)

PRODUCT SELECTION					
Product Description	Dimensions				UOM: Roll of length, P (m)
	Q a min. (mm)	W1 a min. (mm)	W1 b min. (mm)	W2 b min. (mm)	
HVBT-12-A(B20)	25	0.38	0.56	0.86	10
HVBT-14-A(B10)	50	0.38	0.56	0.86	10
HVBT-16-A(B10)	100	0.38	0.56	0.86	10



TECHNICAL REPORT	
EDR-5466	HVBT Product Qualification Report
EDR-5422	HVBT Material Qualification Report

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

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