

RTBM

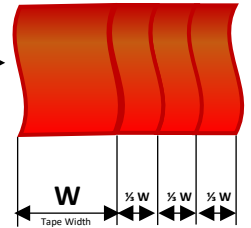
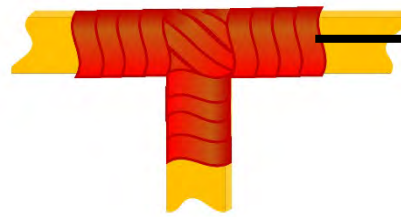
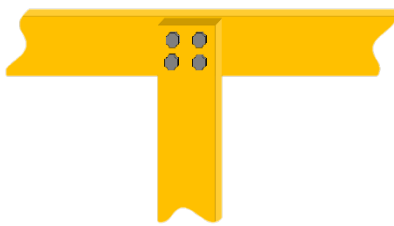
REPL Busbar Insulating Tape (RTBM) is a dual layer tape combining a heat shrinkable outer tape with excellent insulating and weathering properties with an inner hot melt adhesive, to provide moisture tight sealing. It is used to provide insulation enhancement and protection for copper or aluminium busbar sections where tube products cannot easily be applied.

When applied, the outer tape shrinks and the inner adhesive layer forms a tight bond between the layers.

A single layer of RTBM applied at $\frac{3}{4}$ overlap will provide AC withstand of a flashover up to 17.5kV. Double layers will increase withstand level up to 36kV.

It is suitable for both indoor and outdoor applications.

- Continuous Operating Temperature up to 90°C
- Can be used in ambient temperatures down to -40°C
- Unlimited shelf life when stored at <50°C
- Colour: Flame Red
- Available in rolls of 25/50 and 100mm width



PRODUCT DIMENSIONS – RTBM Series

Code	As Supplied Width (W)	As Supplied Thickness (t)	Pack Size 5M Roll		Pack Size 10M Roll	
	mm	mm	Roll Dimensions Ømm x Wmm	Roll Weight (kgs)	Roll Dimensions Ømm x Wmm	Roll Weight (kgs)
RTBM-25	25		78 x 25	0.150	110 x 25	0.290
RTBM-50	50		78 x 50	0.290	115 x 50	0.600
RTBM-100	100	1.0 ± 0.1	80 x 100	0.300	Not available	

MATERIAL SPECIFICATIONS

CHARACTERISTIC	VALUE	TEST METHOD
Physical Properties		
Min. Shrink Temperature	120°C	-
Density	1.1g/cm ³ ±10%	IEC 60684-2 / ASTM D-1505
Water Absorption	<1%	IEC 60684-2 / ASTM D-570
Tensile Strength	>11 MPa	IEC 60684-2 / ASTM D-412
Ultimate Elongation	>500%	IEC 60684-2 / ASTM D-412
Low Temperature Flexibility	No cracking after 4h @40°C	IEC 60684-2
Heat Shock	No cracking or flow	IEC 60684-2
Tensile Strength (150°C for 168hrs)	>10 MPa	IEC 60684-2 / ASTM D-412
Ultimate Elongation (150°C for 168hrs)	>450%	IEC 60684-2 / ASTM D-412
Volume Resistance	≥1x10 ¹⁴ cm	IEC 60093 / ASTM D-229
Dielectric Strength	>20kV/mm	IEC 60243 / ASTM D-149
Dielectric Constant	<3	IEC 60250 / ASTM D-150
Fungus Resistance	No growth	ASTM G-21
Chemical Resistance	Good	ISO 175 24hrs immersion at room temperature in NaOH 40% strength, Toluene, Acetone & H2SO4 3% strength



Please see data overleaf for recommended clearances



RTBM

The table below gives recommendations on the potential reduction in clearances that can be achieved by using the RTBM tape on busbar sections.

However, they are intended for guidance only and the user should satisfy themselves through testing of the suitability for a specific application.

It should be noted that any sharp edges and unusual geometries will affect the performance of the tape.

CLEARANCE REDUCTION GUIDE						
Voltage Level (kV)	Round Busbars			Rectangular Busbars		
						
	With RTBM		Without	With RTBM		Without
	Phase - Phase mm	Phase - Earth mm	IEC 71-2 Air Clearance mm	Phase - Phase mm	Phase - Earth mm	IEC 71-2 Air Clearance mm
12	55	65	120	65	75	120
17.5	70	85	160	85	105	160
24	95	125	220	115	150	220
36	150	205	320	200	285	320

APPLICATION GUIDE				
Product Code	Round Busbars Sections		Rectangular Busbars Sections	
				
	Busbar Diameter Range	Length of tape per metre of busbar section covered	Busbar Width Range	Length of tape per metre of busbar section covered
	mm	metre	mm	metre
RTBM-25	8-15	5	<25	10
RTBM-50	15-50	5-10	25-100	5-15
RTBM-100	50-100	5-10	100-200	5-15