

Medium Wall Busbar Insulating Tubes



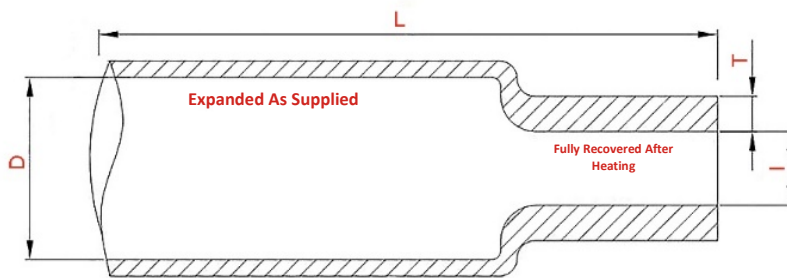
REPL International Ltd UK/Hi-Power Correlation

RIBT

REPL Heat Shrinkable Busbar Medium Wall Insulating Tubes (RIBT) are used to insulate copper and aluminium busbars, preventing flashovers and accidentally induced discharge.

The tubes are made from thermally stabilized, cross linked, non-tracking and weather resistant polymeric material and have a nominal shrink ratio of 3:1 and an unlimited shelf life when stored at normal warehouse temperatures.

- Halogen Free
- Tracking Resistant
- UV & Weather Resistant
- Shrink Ratio: 3:1
- Minimal Shrink Temperature: 120°C



*Drawing depicts typical dimensions (Dimensions are all in mm)

MATERIAL SPECIFICATIONS		
CHARACTERISTIC	VALUE	TEST METHOD
Physical Properties		
Specific Gravity	1.19 ± 0.2	ASTMD - 1505
Water Absorption	1% (max)	ASTM D - 570/ISO 62
Tensile Strength	≥ 14 MPa	ASTM D - 2671
Ultimate Elongation	≥ 300% (min)	ASTM D - 2671
Hardness	45 ± 3 Shore D	ASTM D - 2240
Longitudinal Change	± 10 %	ESI 09 - 13
Shrink Temperature	120°C (min)	IEC - 216
Thermal Ageing Tests (120°C ± 3°C for 168 hours)		
Ultimate Elongation	≥ 200% (min)	ASTM D - 2671
Tensile Strength	≥ 10 MPa	ASTM D - 2671
Thermal Tests		
Heat Shock (30min, 200°C)	No Cracking / No Flow	ESI 09-13
Low Temp. Flexibility (-40%)	No Cracking	ASTM D - 2671
Flammability	Self-Extinguishing	ASTM D - 2671 - B
Electrical Properties		
Dielectric Strength	≥ 19 kV/mm (min)	ASTM D - 149 / IEC 243
Dielectric Constant	≤ 3.5	ASTM D - 150 / IEC 250
Volume Resistivity	1x10 ¹⁴ Ohm-cm (min)	ASTM D - 257 / IEC 93
Resistant to Tracking & Erosion	No Tracking, erosion or flame failure up to 3.25kV for 20 mins	ASTM D - 2303
Chemical Properties		
Fungus Resistance	1 (max)	ASTM G - 21
Chemical resistance immersion in following liquids NaOH (40%), H ₂ SO ₄ (3%), Toluene acetone for 24 hrs at room temperature	Good (no visual defects)	ISO 175

PRODUCT DIMENSIONS – RIBT Series			
CODE	D (mm)		T (mm)
	E	S	S
RIBT 15/6 *	15	6	± 0.2
RIBT 20/8 *	20	8	± 0.2
RIBT 25/10 *	25	10	± 0.2
RIBT 30/12 *	30	12	± 0.2
RIBT 40/16 *	40	16	± 0.2
RIBT 50/20 +	50	20	± 0.2
RIBT 60/24 +	60	24	± 0.2
RIBT 70/28 +	70	28	± 0.2
RIBT 80/32 +	80	32	± 0.2
RIBT 100/40 +	100	40	± 0.2
RIBT 120/48 +	120	48	± 0.2

E – As Supplied | S – After Recovery

* Available in 30 meter spools

+ Available in 15 meter spools

- Custom sizes are available on request with minimum volume requirements

See overleaf for recommendations on application range and clearance reduction ...



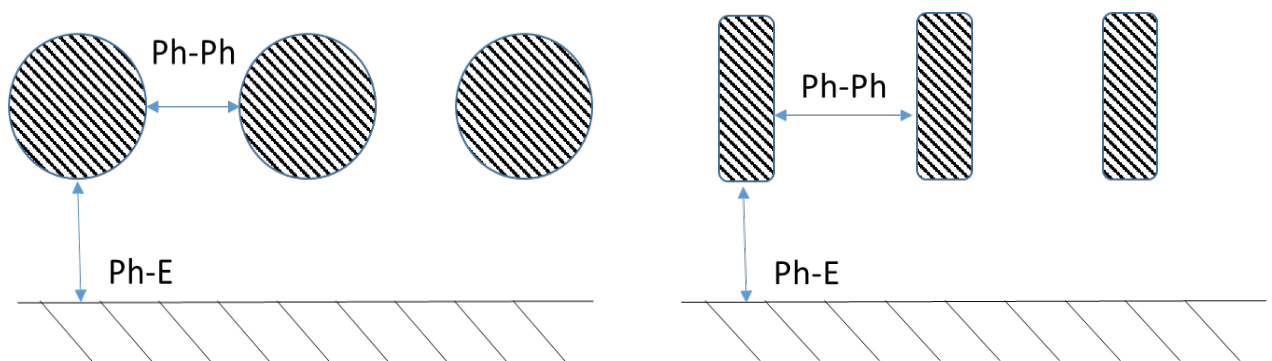
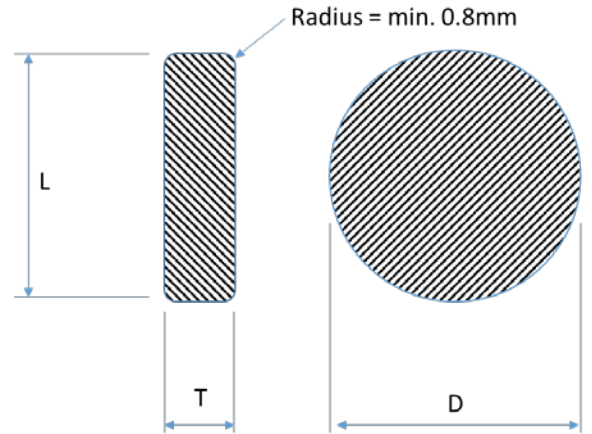
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RIBT

APPLICATION RANGE				
CODE	Rectangular Busbar Section L + T		Round Busbar Section d = Diameter	
	Min	Max	Min	Max
RIBT 15/6	12	18	6.5	12
RIBT 20/8	15	24	9	16
RIBT 25/10	19	31	11	20
RIBT 30/12	22	38	13.5	25
RIBT 40/16	29	50	18	34
RIBT 50/20	36	63	22	42
RIBT 60/24	43	76	26	51
RIBT 70/28	50	89	31	60
RIBT 80/32	57	102	35	69
RIBT 100/40	70	130	44	86
RIBT 120/48	70	156	44	100



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

The table above is for guidance only on the potential clearances when using RIBT busbar tubing based on typical applications. Any unusual geometries will affect dimensions possible.

The user should test on actual applications to ensure adequate performance level

REPL reserve the right to update the information contained in this document at any time without notice. It is the users responsibility to ensure it is suitable for the intended application. Any implied warranty relating to fitness for a particular purpose are explicitly excluded unless agreed in writing by REPL.

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