



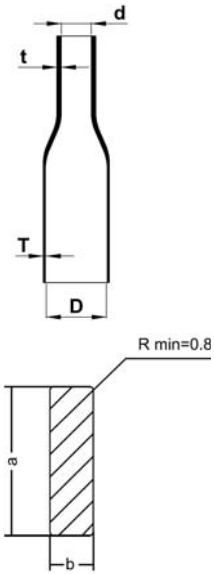
### Features/Applications

GREMTUBE® GBBM-F is a medium wall, flame retardant, irradiated polyolefin heat shrink tubing. GREMTUBE® GBBM-F offers high resistance to tracking and arcing (up to 24kV). GREMTUBE® GBBM-F enhances the insulation properties of bus bars in switchgears and substations where flame retardant properties are required.

### Various

Standard colour: Orange.

### Dimensions



GBBM-F Normal size (mm)	a+b		d Max (mm)	D Min (mm)	t Min for 6-24kV Shrink on The Bus Bar (mm)	Standard Length (m/spool)
	Min (mm)	Max (mm)				
25/10	15	25	10	18	1.6	25
30/12	22	35	15	25	1.6	20
40/16	28	45	20	30	1.6	20
50/20	38	55	25	40	1.6	20
65/25	45	65	35	50	1.6	20
85/35	55	90	40	60	1.6	20
100/40	70	110	50	80	1.6	20
120/50	90	140	60	95	1.6	20
150/60	105	180	70	120	1.6	20
175/75	130	210	85	140	1.6	20
210/85	140	260	95	170	1.6	20

Clearance reduction guide Bus Bar Type	Application Product	Min. Clearance Required (mm)			
		Test Value		Advice Value	
		Electrode To Electrode	Electrode To Ground	Electrode To Electrode	Electrode To Ground
Round sectional Up to 24kV	GBBM-F	75	85	85	95
Rectangle sectional Up to 24 kV	GBBM-F	85	95	90	100

### Property

	Values	Test Method
<b>Physical</b>		
Tensile strength	ASTM D 2671	≥ 14 Mpa
Density	ASTM D2671	1.1 to 1.15
Tensile strength after aging	ASTM D 2671/136°, 168 hrs.	≥ 12 Mpa
Thermal Endurance	-	105°C
Elongation at break	ASTM D 2671	≥ 500%
Elongation at break after aging	ASTM D 2671 (136°/168 hrs.)	≥ 400%
Low Temperature Flexibility 4hrs at -40°C	ASTM D 2671	no cracking
Heat Shock 4hrs at 200°C	ASTM D 2671	No Drop No Flow
<b>Electrical</b>		
Dielectric strength 2mm/0.08 inch wall	ASTM D 2671	> 25kV/mm
2.5mm/0.10 inch wall		> 20kV/mm
Volume resistance	ASTM D 2671	≥ 10 <sup>14</sup> Ω.cm
<b>Chemical</b>		
Tracking and erosion resistance	ASTM 2303	After 1hr at 2.5kV no tracking
Flammability (oxygen index)	IEC 2863	≥25
Water absorption	ASTM D570 (23°C/336hrs)	<0.2%
Resistance to selected fluids 168hrs at 23°C		
Tensile Strength	IEC 60684-2	>8Mpa
Ultimate elongation		>250%
Copper corrosion 158°C for 168hrs	IEC 60684-3	Pass
Long term aging 3000hrs at 120°C	IEC 60684-2	>175°C
Elongation at break		
Colour fastness to light	IEC 60684-3	Contrast between exposed and unexposed parts - The colour does not change

Recommended storage conditions: Keep in cool, dry, ventilated storage (maximum temperature of 35°C) and in closed containers.

