

BUSBAR INSULATION AND COVERS

S1(n)-35 Halogen Free Busbar Insulation Heat Shrink Tube 6 to 36 kV

The 36 kV halogen free busbar grade for switchgear where clearance is tight and smoke toxicity is regulated



Voltage Class	6 kV to 36 kV
Operating Temperature	-40 to 105 °C
Full Recovery Temperature	125 °C minimum
Shrink Ratio	2:1 and 2.5:1
Compliance	Halogen free and RoHS
Standard Colour	Red

Introduction

Halogen-free and environmentally friendly polyolefin material, can be applied in 6kV to 36kV power switchgear, providing insulation enhancement, protection against flashover or accidental discharge. Especially suitable for switchgear with limited space, it can be used for circular and rectangular copper or aluminum busbars.

Features

- Operating temperature: -40 to 105°C
- Minimum full recovery temperature: 125°C
- Voltage class: 6kV to 36kV
- Halogen-free, RoHS compliant
- Shrink ratio: 2:1 & 2.5:1
- Standard Color: Red

Technical Data

Property	Test Method	Requirement
Specific gravity	ASTM D2671	1.0-1.2
Thermal endurance	IEC 216	105°C minimum
Tensile Strength	ASTM D2671	≥14 MPa
Ultimate Elongation	ASTM D2671	≥400%
Heat Aging (136°C/168h) Tensile Strength Ultimate Elongation	ASTM D2671	≥12 MPa ≥300%
Long-term Heat Aging (100°C/3000h) Ultimate Elongation	IEC 60684-2	≥175%
Fluid resistance (23°C/168h) Tensile Strength Ultimate Elongation	IEC 60684-2	≥8 MPa ≥250%
Water absorption (23°C/24h)	ASTM D2671	≤1.0%
Low-temperature flexibility (-40°C/4h)	ASTM D2671	No cracking
Heat shock (200°C/4h)	ASTM D2671	No cracking, dripping or flowing
Dielectric strength	ASTM D2671	≥16 kV/mm
Volume resistivity	ASTM D2671	≥1.0×10 ¹³ Ω·cm

Property	Test Method	Requirement
Tracking and erosion resistance	ASTM D2303	After 1hr at 2.5kV, and 1hr at 2.75kV, No burn penetration, no sustained burning
Color fastness to light	IEC 60684-3-283	Color stability, no change
Copper corrosion (150°C/168h)	IEC 60684-3-283	No corrosion

Dimensions

Size S1(n)-35	As supplied (mm) Inner diameter D (min.)	After recovered (mm) Inner diameter d (max.)	Wall thickness t (nom.)	Standard length (m)
25/10	25	10	3.5	15
30/12	30	12	3.6	15
40/16	40	16	3.6	15
50/20	50	20	3.6	15
65/25	65	25	3.6	15
75/30	75	30	3.7	15
85/35	85	35	3.7	15
100/40	100	40	3.7	15
120/50	120	50	3.8	15
150/60	150	60	3.8	15
175/75	175	75	3.8	15

Products Slection

Bus Bar Size (mm)	Single Layer Bus Bar	Double Layer Bus Bar
20×3, 25×3	Φ25/10	Φ30/12
30×3, 30×4	Φ30/12	Φ40/16
30×10, 40×4	Φ40/16	Φ50/20
40×10, 50×5, 50×6	Φ50/20	Φ65/25 (Φ75/30)
50×8, 50×10, 60×6, 60×8	Φ65/25 (Φ75/30)	Φ75/30(Φ85/35)
60×10, 80×6, 80×8, 80×10	Φ75/30(Φ85/35)	Φ100/40(Φ120/50)
100×8, 100×10, 100×12	Φ100/40(Φ120/50)	Φ120/50
150×12, 150×15	Φ150/60	Φ175/75

Cross Reference

Tyco-Raychem: BBIT

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