



S1(n)-10 6~24 KV Halogen Free Bus Bar Insulation Heat Shrink Tube

Features

- Medium wall cross-linked polyolefin
- Bus bar insulation and protection
- Reduces bus bar clearance requirement
- Halogen free, RoHS compliant
- Protects against short circuit and electrical leakage caused by small animals
- Operating temperature: -40~105°C
- Shrink temperature: 125°C
- Shrink ratio: 2.5:1
- Voltage class: 6~24KV

Technical Data

	Property	Test Method	Values
Physical	Tensile strength	ASTM D2671	≥14 MPa
	Breakdown elongation	ASTM D2671	≥500%
Aging (136°C/168hrs)	Tensile strength	ASTM D2671	≥12 MPa
	Breakdown elongation	ASTM D2671	≥400%
Long term aging (120°C/3000hrs)	Breakdown elongation	IEC 60684-2	≥175%
Resistance to selected fluids (23°C/168hrs)	Tensile strength	IEC 60684-2	≥8 MPa
	Breakdown elongation	IEC 60684-2	≥250%
	Density	ASTM D2671	0.95~1.05
	Thermal endurance	IEC 216	105 °C
	Water absorption (23°C/336hrs)	ASTM D570	≤0.2%
	Low temperature flexibility (-40°C/4hrs)	ASTM D2671	No cracking
	Heat shock (200°C/4hrs)	ASTM D2671	No drop, No flow, No cracking
	Holdig air test	more than 3 bendings on bus bar	After shrink, no air gap between H.S.T. and bus bar
	Cutting test (110°C/168hrs)	Raychem method	5mm Length cutting along longitudinal, no cracking
	Halogen free	Halogen free	Cl:900ppmmax.Br: 900ppmmax. Total(Cl + Br):1500ppm max.
Electrical	Volume resistivity	ASTM D2671	≥10 ¹² Ω.cm
	Tracking and erosion resistance	ASTM D2303	After 1h at 2.5 kV or 1h at 2.75 kV no tracking
	Dielectric strength(in insulation oil)	ASTM D2671	≥16 kV/mm
Chemical	Color fastness to light	IEC 60684-3	Compare between exposed and unexposed parts the color does not change
	Copper corrosion(158°C/168hrs)	IEC 60684-3	Pass

Dimensions

Shrink ratio 2.5:1

Reference UPM S1(n)-10	As supplied(mm) ID min.	After recovered(mm) ID max.	WT nom.	Standard length m/spool
25/10	25	10	2.50	25
30/12	30	12	2.65	20
40/16	40	16	2.65	20
50/20	50	20	2.65	20
65/25	65	25	2.85	20
75/30	75	30	2.85	20
85/35	85	35	2.85	20
100/40	100	40	2.85	20
120/50	120	50	2.85	20
150/60	150	60	2.90	20
175/75	175	75	2.90	20

Product selection

Bus bar size (mm)	Single layer bus bar	Two layers 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
100×15,120×10,120×12,120×15	Φ120/50	Φ150/60
150×12,150×15	Φ150/60	Φ175/75

● ID=Internal Diameter

● WT= Wall Thickness

Typical application

- Suitable for insulation and protection of bus bar against accidental flashover up to 24 KV
- Ideal for using in switchgears cabinets where space is limited and air spacing between bus bars need to be minimized

Ordering

- Standard color : Red
- Standard packaging on spools.
- Please provide specification, quantity when ordering

Cross reference

- Raychem/ Tyco : BPTM