





# **CMVBT**

Anti-Track, Adhesive Coated, Heat Shrinkable Tape specifically designed for insulating and protecting Medium Voltage Bus Bar

## **Main Features**

- Tested to ANSI C31.20.2 standards for medium voltage switchgear applications to 25 kV
- Reduces bus bar clearance requirements
- Protects against accidental flashover
- Anti-Track
- Halogen Free
- Continuous operating temperature: -25°C to 90°C
- Shrink temperature: 120°C





### Medium Voltage Crosslinked Polyolefin Bus Bar Tape



### **Technical Data**

#### **Physical**

Property	Test Method	Typical Performance
Tensile Strength	ASTM D412, ISO 37	1200 psi (8.3 MPa)
Elongation	ASTM D412, ISO 37	370%
Heat Aging (7 days 175°C)		
Tensile Strength	ASTM D2671	1500 psi (10 MPa)
Elongation	ASTM D2671	200%
Heat Shock (4 hrs at 225°C)	ASTM D2671	No cracking or flowing
Low Temperature Flexibility	ASTM D2671	No cracking
(4 hrs at -25°C)		
Flammability	ANSI C37.20,	Pass
	ASTM D2671	
Floridate		

#### Electrical

Dielectric Strength	ASTM D149	500 V/mil (20 kV/mm) at 2 mm
Surface Resistance	ASTM D257	510 x 10° ohm
Volume Resistivity	ASTM D257	2.20 x 10 <sup>13</sup> ohm-cm
Dielectric Constant	ASTM D150	3.4
Tracking Resistance (2500 V, 300 min)	ANSI C37.20, ASTM D2303	Non-tracking
Weathering	ASTM G53	Non-tracking after 6000 hrs

#### Chemical

Corrosion	ASTM D2671	No corrosion
Water Absorption	ASTM D570	0.25%
Fluid Resistance	MIL-DTL-23053/15	Good to excellent
i iuiu kesistanee	MIL-D1F-52002/12	GOOD TO EXCENEUT

#### Adhesive

Auriesive Sortering Point	ASTIVI EZ8	100 C
Low Temperature Flexibility	STM C12	-25°C
Lap Sheer	STM C9	250 psi
Peel Strength: To Aluminum	STM C8	10 pli
Tracking Tests (2500 V, 300 min)	ANSI C37.20, ASTM D2303	Non-tracking

### **Medium Voltage Bus Tape**

For Services to 25 kV Over Bolted Bus Bar

mm mm mm mm CMVBT-1 25.4 1.06 7.62	ORDER REF. NO.	ROLL WIDTH (MIN)	BACKING THICKNESS RECOVERED (NOM)	ROLL LENGTH
CMVBT-2 50.8 1.06 7.62 CMVBT-4 101.6 1.06 7.62	CMVBT-2	25.4 50.8	mm 1.06 1.06	7.62 7.62

### **Clearances with Insulation**

SYSTEM VOLTAGE	BIL kV	p to p (mm)	p to g (mm)	
15 kV	95	64	74	
17 kV	110	86	106	
25 kV	125	114	152	

p to p: Phase to Phase orientation

p to g: Phase to Ground orientation

Spacing based on metal to metal dimension prior to insulation

Application ranges noted above selected to obtain minimum insulation thickness required to meet ANSI C37.20.2 withstand requirements at bus bar spacing and operating voltages noted. These spacings were determined from a limited number of test configurations. Due to the wide variety of bus bar configurations, these spacings and recovered wall thicknesses should not be employed by the user without actual verification and testing for the intended application.

### **Installation Instructions**

CMVBT-1 is best for short lengths

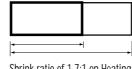
CMVBT-2 is most commonly used and versatile

CMVBT-4 is used for long lengths

A 2/3 overlap is recommended

One layer application required to 17kV

Two layer application required to 25kV



Shrink ratio of 1.7:1 on Heating

### **Ordering**

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

Lengths:	Supplied on 7.6 m rolls
Standards:	Tested to ANSI C37.20.2 for applications to 25kV Test report available

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