



ELECTRICAL  
MECHANICAL  
INSULATION

**GANNUSA**  
EMI



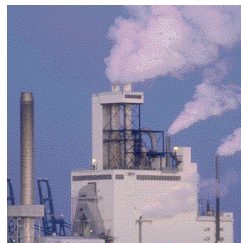
FLAME  
RETARDANT



1.7:1  
STANDARD  
SHRINK RATIO

Medium Voltage  
Crosslinked Polyolefin  
Bus Bar Tape

CMVBT



# CMVBT

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

## Features

- Tested to ANSI C37.20.2 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



### 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 (4 hrs at -25°C)	ASTM D2671	No cracking
Flammability	ANSI C37.20, ASTM D2671	Pass

#### Electrical

Dielectric Strength	ASTM D149	500 V/mil (20 kV/mm) at 2 mm
Surface Resistance	ASTM D257	510 x 10 <sup>9</sup> 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

#### Adhesive

Adhesive Softening Point	ASTM E28	100°C
Low Temperature Flexibility	STM C12	-25°C
Lap Shear	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

## CANUSA-EMI

### There's no end to what we cover

CANUSA-EMI is a global company providing electrical and mechanical insulation solutions for a variety of industries and applications. Starting from products created by extensive developmental research at Shaw Industries (incorporated 1955), CANUSA-EMI is a recognized world leader in the provisioning of high quality heat shrink products.

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### Medium Voltage Bus Tape

For Services to 25 kV Over Bolted Bus Bar

ORDER REF. NO.	ROLL WIDTH (MIN)		BACKING THICKNESS RECOVERED (NOM)		ROLL LENGTH	
	mm	IN	mm	IN	m	FT
X						
CMVBT-1	25.4	1	1.06	0.042	7.62	25
CMVBT-2	50.8	2	1.06	0.042	7.62	25
CMVBT-4	101.6	4	1.06	0.042	7.62	25

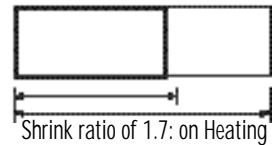
### Clearances with Insulation

SYSTEM VOLTAGE	BIL kV	p to p (mm)	p to p (IN)	p to g (mm)	p to g (IN)	p to p: Phase to Phase orientation p to g: Phase to Ground orientation Spacing based on metal to metal dimension prior to insulation
15 kV	95	64	2.5	74	2.9	
17 kV	110	86	3.4	106	4.2	
25 kV	125	114	4.5	152	6.0	

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



### 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.

To Order, Specify:

Order Ref. No.  
**CMVBT - X**

Standard Colors (CC)

Order Code	Color
RD	RED

Lengths: Supplied on 25 ft rolls

Standards: Tested to ANSI C37.20.2 for applications to 25kV  
 Test report available