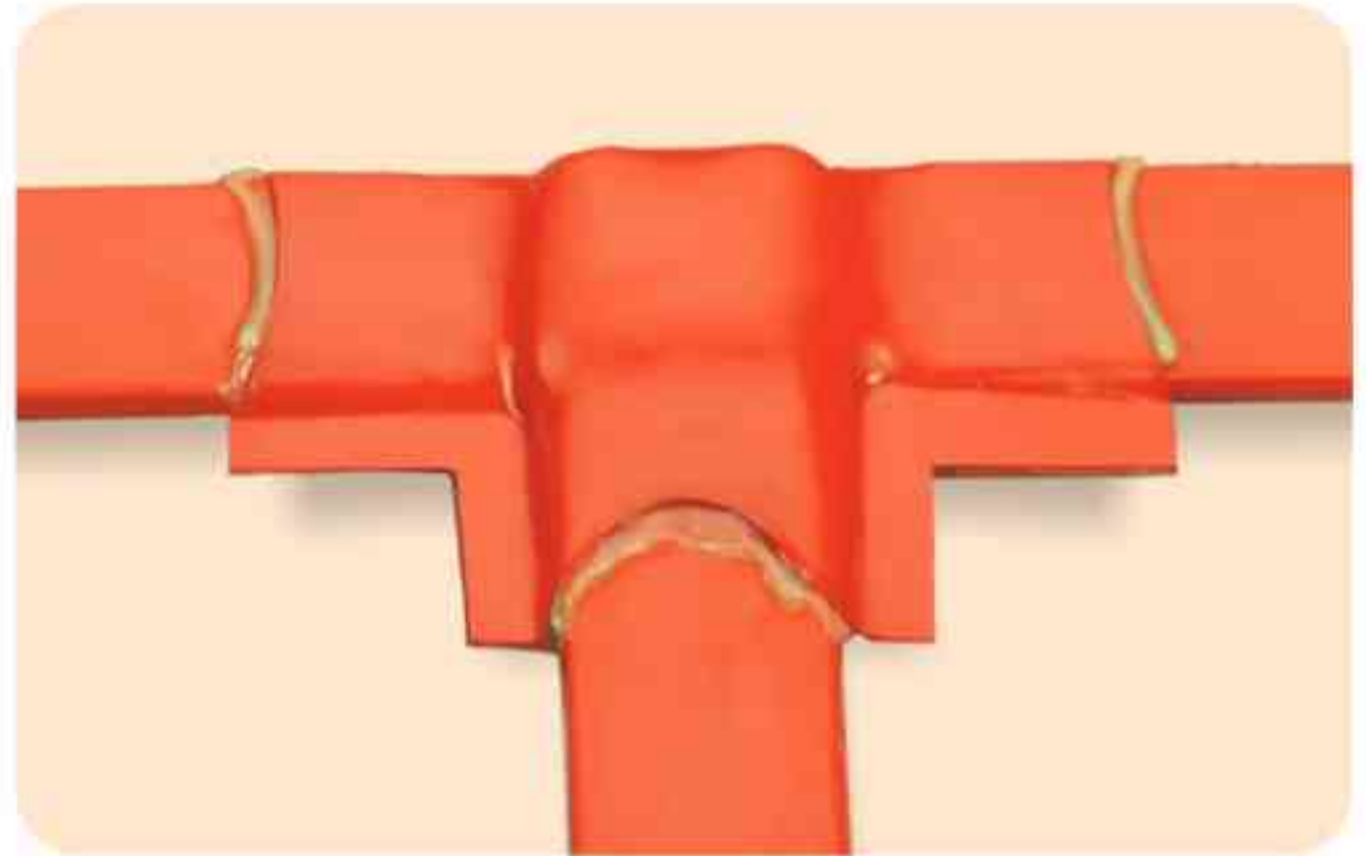




Bus Sheet GMHS & GHHS is an adhesive coated heat shrinkable sheet, which provides insulation enhancement & protection against accidentally induced discharge. It is suitable to insulate almost any sizes or shapes of busbar joint like busbar tees, elbows and other connections where tubing and tape can not be used.



Application of Heat Shrink High Voltage Insulation Sheets

## HEAT SHRINK HIGH VOLTAGE INSULATION SHEET

### TECHNICAL SPECIFICATION

	TEST DESCRIPTION	RECORDED VALUE	TEST METHOD
<b>Physical</b>	1. Tensile Strength	12 N/mm <sup>2</sup> (MPa) (min.)	ASTM D638
	2. Ultimate Elongation	300% (min.)	ASTM D638
	3. Water Absorption	0.5% (max.)	ASTM D570
	4. Hardness	45 ± 10 Shore D	ASTM D2240
<b>Thermal</b>	1. Accelerated ageing	120°C for 500 hrs	ASTM D2671
	a. Tensile Strength	10 N/mm <sup>2</sup> (Mpa) (min.)	ASTM D638
	b. Ultimate Elongation	250 % (min.)	ASTM D638
	2. Low Temp. Flexibility (-40°C for 4 hrs)	No Cracking	ASTM D2671
	3. Heat Shock (250°C for 30 min.)	No cracking or flowing	ESI 09-11
	4. Shrink Temperature	125°C	IEC 216
	5. Continuous Temp. Limit	-40° to +105°C	IEC 216
<b>Electrical</b>	1. Dielectric Strength	22 KV/mm. (min.)	ASTM D149
	2. Volume Resistivity	1 x 10 <sup>14</sup> Ohm.cm min.	ASTM D257
	3. Dielectric constant	5 (Max.)	ASTM D150
	4. Resistant to track & erosion	No Tracking, erosion or flame failure up to 3.25 KV for 20 min.	ASTM D2303

After applying heat, this sheet shrinks to tightly conform to complicated shapes. Gala mastic tape can also be added to ensure that protruding shapes are insulated.

The sheet is manufactured from high quality non tracking crosslinked polyolefin material & meets ANSI C37.20.2 standards for MV application upto 36KV. GMHS sheet shall provide flashover protection up to 17.5kV. & GHHS sheet shall provide protection up to 36kV.

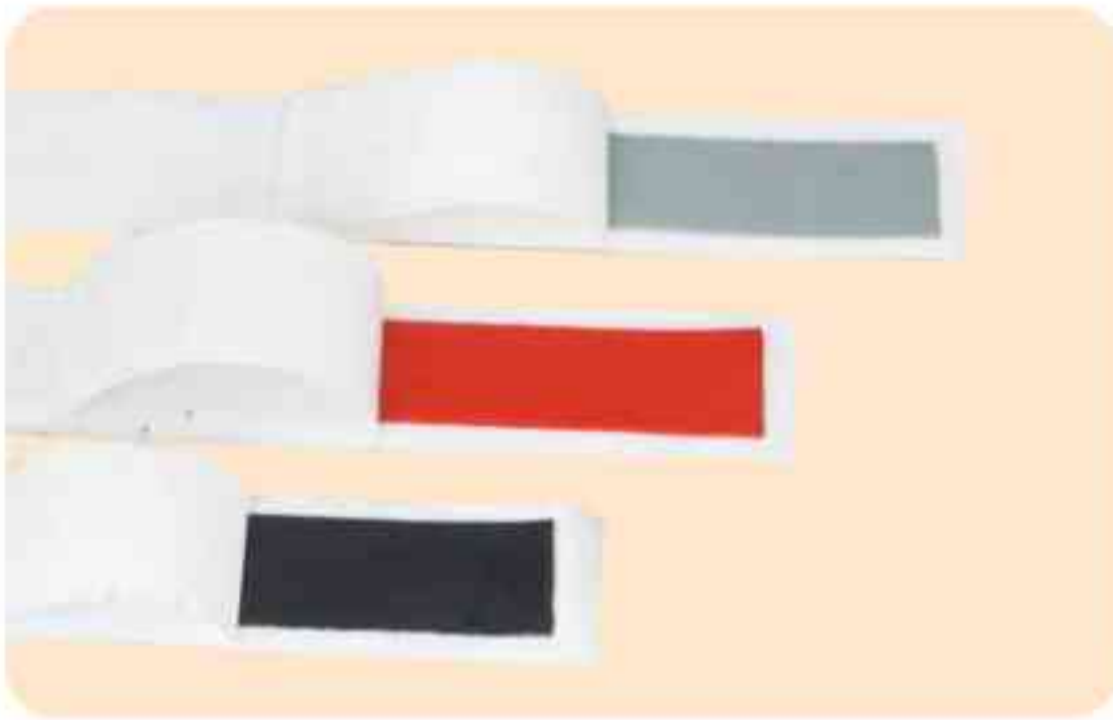
### -: FEATURES & BENEFITS :-

- ❖ Easy to install on site using a gas torch or hot air gun.
- ❖ Prevents Busbar from chemical corrosion effected by strong acid, alkali, salt, etc.
- ❖ Halogen free, flame retardant.
- ❖ High dielectric strength.
- ❖ Excellent UV & weather resistant properties, & hence suitable for indoor or outdoor use.
- ❖ Reduces BusBar Clearance.
- ❖ No Special Mould / Tool required.

Technical Qualification Report : QR 1019

CLEARANCE WITH INSULATION

VOLTAGE	MEDIUM WALL SHEET (GMHS)		HEAVY WALL SHEET (GHHS)		EXTRA HEAVY WALL SHEET (GEHHS)		UN-INSULATED BUS BARS
	PH. TO PH.(mm)	PH TO GR.(mm)	PH. TO PH.(mm)	PH TO GR.(mm)	PH. TO PH.(mm)	PH TO GR.(mm)	
12 KV	65	75	35	45	-	-	120
17.5 KV	85	105	55	65	-	-	160
24 KV	115	150	70	100	-	-	220
36 KV	200	285	140	190	-	-	320
66 KV	-	-	-	-	390	520	630



Void Filling & Sealing Mastic

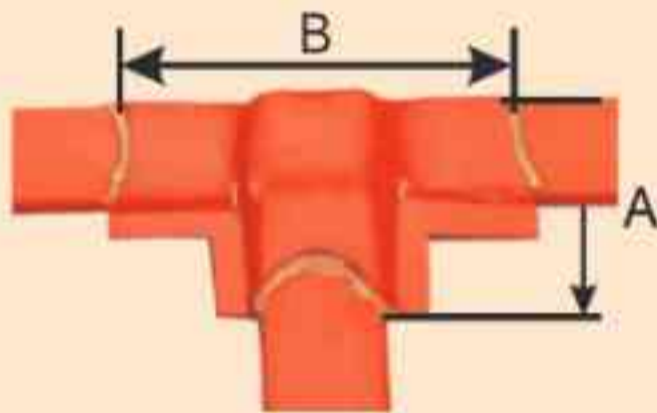


Bus Sheet Installation Tools

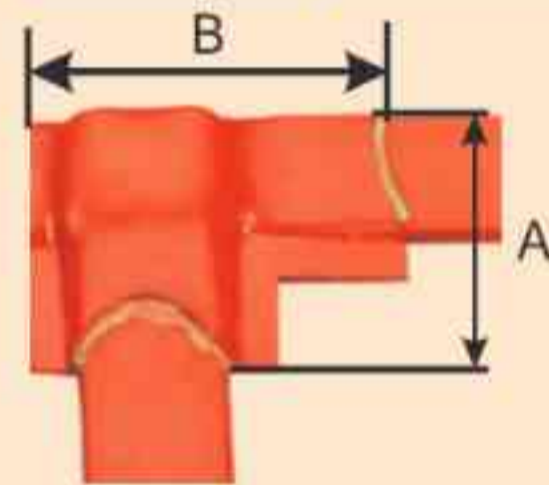
## HEAT SHRINK HIGH VOLTAGE INSULATION SHEET

### PRODUCT SELECTION

#### FOR 'T' CONNECTION



#### FOR 'L' CONNECTION



Tube Size	Busbar Width (mm)	No. of Busbar Run	Cut Size Needed			GMHS (11 kV)	GHHS (36 kV)	GEHHS (66 kV)	For T Joint	For L Joint	Length (mm)
			For T Joint		Thickness (mm)	Thickness (mm)	Thickness (mm)	No. of Installation Per Sheet	No. of Installation Per Sheet		
			A (min.)	B (min.)						B (min.)	
65/45	25	1	205	85	85	1.5	2.3	3.5	14	14	1200
95/60	50	1	295	130	120	1.5	2.3	3.5	9	10	1200
120/70	75	1	345	150	150	1.5	2.3	3.5	8	8	1200
150/110	100	1	455	240	200	1.5	2.3	3.5	5	6	1200
180/110	150	1	555	300	240	1.5	2.3	3.5	4	5	1200

**Note:** The above table should be used as a guideline only. Please try with one or two joints before adopting final cut size. The busbars are assumed to be insulated to 25mm. from the joint. Cut size should extend minimum of 100mm. on each leg of the joint before shrinking and should overlap existing insulation by 65mm. after shrinking.

### ORDERING INFORMATION

OPTIONAL COMPONENTS	LENGTH (mm)
VOID FILLING MASTIC PIECE	300
SEALANT MASTIC PIECE	300
TOOL KIT - 1	(BASIC CLAMP AND BRACKET KIT)

**Note :** If required, one piece of Red sealing mastic is applied on each leg of the joint and one or two pieces of Black sealing mastic is used to cover uneven shapes.



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