	INSULATION SYSTEMS ENGINEERING		IN. SK. 46089
			Rev. No.: 01
	SEMI-CONDUCTING TAPE		Rev. Dt.: 12/03/2022
			Sht. 1 of 2 shts.

INSULATION CLASS 'F'

**1.0 GENERAL :**

This specification covers the requirements of semi-conducting tape with woven polyester fabric tape as substrate impregnated with silicone carbide filled resin system in B-stage with non-linear voltage current characteristics for use up to Class F (155°C).

**2.0 APPLICATION :**

This material is used for End Corona Protection in High Voltage A.C. machine stator coils with VPI technology.

**3.0 FORM OF SUPPLY :**

The tape should be flexible and semi-cured with adequate tackiness to ensure complete sealing between the layers when applied.

**4.0 PROPERTIES :**

**4.1 Dimension :**

i) Thickness : **0.20 + 0.08 mm**  
- 0.04 mm

ii) Width : **20 mm or as specified on the order**

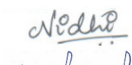
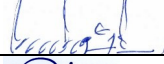

**4.2 Total Substance : 360 ± 40 gsm**

**4.3 Tensile Strength : ≥ 80 N/cm**


**4.4 Elongation at Break : ≥ 10 %**

**4.5 Composition :**

Woven polyester fabric tape impregnated with silicone carbide filled varnish in B-stage.

Distribution:	Date of Rev. 00: 30/07/2016	Name	Signature
CIM ISE MDX AME TSD QFD	Prepared by	Abha Otti	
	Checked by	Nidhi Gupta / Bishwanath Oraon	 
	Approved by	Anirudha Tijare	
	Issued by	Abha Otti	

**BHEL BHOPAL**

	INSULATION SYSTEMS ENGINEERING	IN. SK. 46089
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**5.0 SHELF LIFE :**

Minimum 1 year at  $\leq 5\text{ }^{\circ}\text{C}$  / Minimum 6 months at  $> 5\text{ }^{\circ}\text{C}$  to  $\leq 25\text{ }^{\circ}\text{C}$ .

**6.0 PACKING :**

6.1 Tape shall be supplied in rolls, with roll length of 50 m

6.2 Tape rolls shall be suitably packed so that the material is protected from dirt, dust and moisture and is not damaged during transportation.

**7.0 MARKING ON ROLLS :**

7.1 Semi – Conducting Tape (IN. SK. 46089)

7.2 Supplier’s Name and Grade of Material

7.3 Supplier’s Lot No./ Batch No.

7.4 Dimensions

7.5 Purchase Order No.

7.6 Shelf Life

**8.0 TEST CERTIFICATE :**

The supplier shall furnish 4 copies of test certificate as per specification.

**9.0 ACCEPTANCE CRITERIA :**

Material shall be accepted on the basis of test and/ or compliance certificate furnished by the supplier and/ or testing carried out at BHEL end.

**10.0 REJECTION :**

BHEL reserves the right to reject the entire lot of the material if found not conforming to stipulations of this specification. Parts of the lot not subjected to testing but found to be defective and those with hidden defects can be rejected later on, also. Material is also liable to be rejected if any problems related to application/ performance are observed in shop .

**11.0 CROSS REFERRED STANDARD :**

NIL.

**12.0 CHANGES DUE TO REVISION:**

Spec. reviewed & reaffirmed.

BHEL BHOPAL