



TME/2011

PRODUCT STANDARD

TME DIVISION, BHOPAL

TM 14553

Rev. No. 00

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PRODUCT STANDARD FOR NON ASBESTOS, MOISTURE RESISTANT, SLATE FILLED, SOLVENTLESS PUTTY

1. Scope:

This specification describes about a non-asbestos, moisture resistant slate filled solvent less putty made of two part material (One part : powder and one part: Resin) mixed in given proportion and used in filling voids and spaces in traction motor armatures and field coils.

2. Mixing guidelines:

The two parts (One part: powder and one part: Resin) to be mixed at the time of application in a ratio as recommended by supplier and converted to a tough infusible solid by heat.

3. Properties of resin:

Property	Unit	Specified value	Test method
Type of resin	-	Solvent less resin	-
Colour	-	Clear liquid (preferably)	-
Viscosity	CPS	300-400	Brook field apparatus
Storage life below 20°C	Months	6 months (minimum)	-
Gel time at 100°C with 1% catalyst	Minutes	15-30	-
Density at 25°C		1.19±0.01	
Flash point	°C	Above 200	

4. Curing Cycle for putty:

8 Hrs when cured at 90°C/6 Hrs when cured at 125°C/4 Hrs when cured at 150°C or any other curing cycle as recommended by supplier

5. Properties of cured putty:

Property	Unit	Specified value	Test method
Physical state at room temperature	-	Solid	-
BDV of 3mm thick specimen at room temperature	KV/mm	10 (minimum)	JIS-K-6911 CL.5.8 & IS2504/BS2782
Insulation Resistance	Ω CM	1.9 x 10 ¹³ at room temperature (minimum)	IS11755
		1.8 x 10 ¹³ at 125 °C (minimum)	
Dissipation factor, 500V	-	0.012 at room temperature	JIS-K-6911
		0.02 at 125 °C	
Dielectric Constant	-	4.3	JIS-K-6911 CL.5.14.1
Class of Insulation		Class H (minimum)	IEC-216-1 to 5
Pot life at room temperature	hrs	72 (minimum)	-

Rev. No. 00	Distribution	Prepared	Checked	Approved
Date: 29.10.2014	TME - 2 TNX - 1 TXM - 1 TAM - 1 QMX - 1 TSD - 1	 (Shishu Pal)	 (V. Rawtiya)	 (S.P. Singh)

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6. **Test Certificate:**

Supplier to submit 2 copies of test certificate for resin and cured putty with each consignment.

Test certificate shall bear following information:

TM14553: NON ASBESTOS, MOISTURE RESISTANT, SLATE FILLED,
SOLVENTLESS PUTTY

BHEL PO NO:

Batch No. /Lot No:

Test values obtained w.r.t. specification:

7. **Packing & Marking:**

Each package shall be marked with following information:

TM14553: NON ASBESTOS, MOISTURE RESISTANT, SLATE FILLED,
SOLVENTLESS PUTTY

BHEL PO NO:

Batch No. /Lot No:

Month and year of manufacturing: