



TME/2011

PRODUCT STANDARD

TME DIVISION, BHOPAL

TM 22602

Rev. No. 00

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SPECIFICATION FOR ALKYD VINYL VARNISH

1. Scope:

This specification governs properties of Alkyd vinyl varnish concentrate use as binder for mica for manufacture of mica V cone (V rings), mica separators and mica bush for commutator assembly of DC machine commutators.

2. Application:

- Rigid mica sheets / micanite, for manufacturing of commutators mica separators
- Flexible mica sheets for manufacturing of V Cones and other moulded items
- Mica adhesive for other applications

3. Desirable Physical properties after mixing:

- Good moisture resistance
- Excellent adhesion
- Provides class 155°C (Class 'F') performance to mica composites.
- Provides high dielectric strength to mica composites (withstands electrical load of 7 KV/mm, 50 Hz AC, for 1 minute)

4. Technical Specifications of varnish:

Property	Unit	Specified value	Test Method
Solid content	%	40±2	IS10026-2
Viscosity at 25°C	CPS	800±200	IS10026-2
*DSC value	°C	95-125	ASTM D 3418
Shelf life at 25°C	-	6 months (Minimum)	-

Note: Above Technical requirements for varnish are indicative. Supplier may suggest suitable alternative also. However, application and performance requirement shall be as called for in clause 2 & 3.

* Transition temperatures by Differential Scanning Calorimetry (DSC)

5. Storage and Handling:

Supplier to provide necessary storage and handling instruction with each consignment

6. Safety Information:

Supplier has to provide necessary Material Safety Data Sheet (MSDS) requirement for material.

7. Test Certificate:

Supplier to submit 2 copies of test certificate for Alkyd Varnish w.r.t. specified values as per clause 4 or as per data sheet of approved grades.

Test certificate shall bear following information:

TM22602: ALKYD VINYL VARNISH

BHEL PO NO:

Batch No. /Lot No:

Rev. No. 00	Distribution	Prepared	Checked	Approved
Date: 23.03.22	TME - 2 TNX - 1 CIM - 1 QMX - 1 TSD - 1	 (K Dugvekar) Dy. Mgr./TME	 (B Tamrakar) Mgr./TME	 (V. Rawtiya) DGM/TME



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8. **Packing & Marking:**

Each package shall be marked with following information:

TM22602: **ALKYD VINYL VARNISH**

BHEL PO NO:

Batch No. /Lot No:

Month and year of manufacturing:

Expire date of material:

9. **Approved Grades:**

Following are the approved grades:

- RE3440 of M/s Rotomac Electrics Pvt. Ltd.
- Alkyd Vinyl Resin of M/s Sahney Kirkwood Pvt. Ltd.
- SI-7704 Class "F" of M/s Safe Insulation Tech. Pvt. Ltd.

Note:

- 1) Any other grade can be offered against this specification subject to material properties confirming to this specification.
- 2) For any other grade supplier to submit test certificate as per this specification from NABL/any internationally accredited lab followed by sample approval at BHEL works.