

Government of India
Ministry of Railways
Research, Designs & Standards Organisation
Manak Nagar, Lucknow - 226 011

No.EL/3.2.1/2/J6
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SPECIAL MAINTENANCE INSTRUCTIONS NO RDSO/ELRS/SMI/125

**PRIMER AND PAINT TO BE USED FOR FREIGHT LOCOMOTIVE
TRANSFORMER**

1. OBJECT

Railways have reported peeling off of the paint inside the freight loco transformers and eventually blocking circulation pipes beside impeding the oil circulation between windings. To obviate this, it has been decided to procure primer and paint as per the IS Specification indicated below.

2. INSTRUCTIONS

Primer Paint Description

Anticorrosive synthetic printing paint which shall be capable of being brushed, sprayed or flow coated by suitable thinning with white spirit. Two coats of primer paint shall be given before the finishing paint is applied.

Colour - red or brown.
Specification - IS: 2074 of 1962.
Finish - Matt or egg shell flat.

The primer shall remain free from defects like hard settling of pigments, skinning when kept in closed container and livering (excessive viscosity build up) during its rated shelf life.

The primer shall be composed of zinc chrome, good quality extenders and red oxide of iron as pigments dispersed in a suitable alkyd varnish medium with solvents and driers to meet the requirements of this specification.

Finishing Paint Description

Synthetic resin full glossy high quality air drying finishing paint. The paint shall be capable of being brushed, sprayed or flow-coated by thinning suitable with white spirit.

The paint shall be compatible on surfaces primed with any primer conforming to IS:2074-1962.

Application : Suitable for application on the surfaces of outdoor equipment.

Specification- Though corresponding IS specification for this material is not available, it is generally to IS:2932 of 1974 for Enamel Synthetic, Exterior
(a) Under Coating and (b) Finishing.

Finish - Smooth and full glossy.

The paint shall remain free from defects like hard settling of pigments, skinning when kept in a closed container and livering (excessive viscosity build up) during its rated shelf life.

The dried paint shall be free from defects like bittyness, floating of pigments, surface haze, orange peeling, colour fading, wrinkles, etc.

Chemical composition - Only non-chalking rutile titanium dioxide shall be used as a white pigment and any other pigment used shall be light-fast. Extenders shall not be used in general. If absolutely necessary, good quality extenders upto a maximum of 5 percent may be used. The total content of solids in the paint shall be 60+ 2% weight. The binder shall be a penta-alkyd medium, oil -modified (60-65%), and not containing resin or semilar natural resins, modified or otherwise.

Colour -- Shade 631 of IS:5

3. REFERENCE

M/s BHEL's letter No TRE-538 dated 29.3.1985.

4. PERIODICITY

Whenever the transformer tank is taken up for painting.

5. INSTRUCTION DRAWING

NIL.

6. APPLICATION OF CLASS OF LOCOMOTIVES

All ac electric locomotives.

7. AGENCY OF IMPLEMENTATION

All POH shops.

8. DISTRIBUTION

As per list attached0.



(M. M. PRAKASAM)
for Director General (Elect).