

## Summary of Indian Standard IS 2932: 2013

### ENAMEL, SYNTHETIC, EXTERIOR: (a) UNDERCOATING (b) FINISHING — SPECIFICATION

#### Confident Guide to Colour, Durability and Reliability of Enamel

The Indian Standard IS 2932:2013 serves as a comprehensive guideline for synthetic exterior enamels intended for undercoating and finishing applications. Established by the Bureau of Indian Standards (BIS), sectional committee CHD20 in Chemical Divisional Council this standard aims to ensure that synthetic enamels meet specific quality, safety, and performance criteria. One of the primary requirements outlined in the standard is the composition of the enamels, which must be based on synthetic alkyd resins while explicitly prohibiting the use of natural rosin and its derivatives. This restriction is crucial as it helps maintain the integrity and durability of the paint over time. The standard also specifies key physical properties that the enamels must exhibit, including Condition in container during storage, at delivery, Freedom from coarse particles, Skin formation, thinning properties, viscosity, drying time, gloss, and fineness of grind. These parameters are essential for ensuring that the paint performs consistently and meets user expectations in various applications.

Moreover, IS 2932 which has total of 30 colour categories emphasizes the importance of durability and long-term performance through rigorous testing protocols. It mandates that the synthetic enamels undergo durability testing to assess their ability to withstand outdoor exposure and accelerated weathering conditions. This testing is vital in determining how well the paint will retain its colour, gloss, and overall integrity over time, thereby ensuring customer satisfaction and trust in the product. In addition to performance criteria, the standard addresses health and safety concerns by limiting a maximum permissible limit of lead content to 90 ppm and this significantly reduces potential health risks associated with lead exposure, particularly in dried paint surfaces. In this standard minimum requirement for phthalic anhydride content of the non-volatile vehicle has been specified at 20% to ensure consistent quality assurance.

The standard also includes a structured testing requirements specified in Table 2 that requires compliance with the specified requirements. Furthermore, IS 2932 provides clear guidelines for marking and packaging including the BIS Certification Marking, ensuring that consumers receive accurate information regarding the product safety and quality. By establishing these comprehensive specifications, IS 2932 plays a vital role in promoting high standards in the synthetic enamel market, protecting consumer interests, and fostering confidence in the durability, reliability and safety of synthetic exterior enamels used in undercoating as well as finishing used in painting system for protection as well as decorative applications.

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