

NANO-MATERIAL BASED COATING FOR BILGES (NMR-NMBC)

NMRL, Ambernath has developed anticorrosive epoxy coating is developed for application in bilge areas of naval ships. It is a direct to metal coating. It tolerates surface dampness, oil, grease, rust and pre-existing coatings as the surface contaminants. The paint composition is thixotropic in nature and provides a dry film thickness about 250 micron in a single coat.

The essential ingredients of this paint are epoxy resin, curing agents, reactive diluent and nano and micron size pigments and fillers. It also consists of specialty additives for adhesion promotion, thixotropy, wetting, dispersing and defoaming. This paint can be prepared using combination of ultrasonicator, high speed disperser and triple roll mill. It has two hours pot life. It cures to form a hard and tough barrier coating to protect the substrates in contact with bilge water (mixture of seawater and oil). For application of this paint, there is no need of dry docking of the ship.



Salient features of coating

- Excellent adhesion on wet, oily, rusted and pre-existing paints
- Direct to metal coating
- Excellent corrosion resistance
- Excellent water, alkali and oil resistance
- Good flow, leveling and no brush marks
- Higher flexibility and impact strength

Photographs of nano-material based coating system (base and hardener)