

Product Description

A two components high solid, surface tolerant epoxy coating as universal and multipurpose primer for severe corrosive environment.

Features

- Excellent durability in wide range of corrosive environment.
- Easy to use – spray, brush, roller
- Multipurpose Surface Tolerant Epoxy Primer.
- Suitable for most of the areas of ship as universal primer.
- Excellent mechanical and physical properties for heavy duty application
- resistance to sea water and cathodic protection
- coal tar, lead & chrome free
- compatible to various subsequent coating

Typical Uses

Suitable for use as protective coating for various parts of ship such as hull, deck, superstructures and ballast tanks. Recommend to use for steel structures at coastal area such as refinery, mining facilities, power plant, bridges, buildings and steel installation. It has excellent mechanical and physical properties such as adhesion, impact and abrasion resistance which minimise mechanical damage during handling and transportation.

Physical Data

Color	:	Light Grey, grey, Red Brown, Black, Buff
Flash Points	:	Base : 28.0 °C Hardener : 28.0 °C
Volume Solid	:	76+/- 2%
VOC(as supplied)	:	286g/L
Shelf Life @25°C / indoor	:	24 months

Typical Thickness : 125 ~ 250µ dried film.

Drying Time(at Dry Film Thickness 150µ)	Temperature	10°C	20°C	30°C
	Surface Dry	11.0 hrs	4.0 hrs	2.5 hrs
Hard Dry	19 hrs	9.0 hrs	5.0 hrs	
Painting interval:	Minimum	19 hrs	9 hrs	5.0 hrs
	Max. (self)	120 D	120 D	120D
Pot Life		5.0 hrs	3.0hrs	2.0hrs
Theoretical coverage (at DFT 150- 200µ)		0.20~0.263 L/m ² ; 5.0 ~ 3.8m ² /L		
Service temperature		-60 to 150°C (dry)		
Curing time for cargo loading		18 days	10 days	6 days

Application Data

Mixing ratio : Base : hardener = 86 : 14 (by weight)
Application Method : airless spray, roller, brush

Mixing Procedure : Add part B into part A and power mix for at least two minutes or until homogeneous.

Drying schedule : Drying by solvent evaporation and chemical cross linking. Higher film thickness, insufficient ventilation, or lower temperature will require longer drying time. Excessive humidity or condensation on the surface can interfere with the drying cause discoloration and may result in a surface haze. Any haze or contamination must be removed by water washing before recoating.

This product requires the substrate temperature to be above the dew point (+ 3~5 °C). Condensation due to substrate temperatures below dew point can cause flash rust on metal and adhesion will be affected.

Color Different : The paint use as primer or anti fouling may have slight color variance between batches. Similarly, the paint under sun light exposure may fade and chalk.

Application Procedure

Mix properly the paint before use.

- Flush equipment with epoxy thinner before use.
- Mix the paint (part A and Part B accordingly to mixing ratio) thoroughly until homogeneous.
- Thin with epoxy thinner only if necessary for workability.
- When applying by conventional spray, use adequate air pressure and volume for proper atomisation.
- Apply a wet coat in even parallel passes, overlap 50% to avoid holidays and pin hole.
- Excessive thickness can prolong drying and sagging.
- Clean up all equipment with thinner immediately after use.
- Keep containers tightly close and store in proper storage area.

Condition of Application

Use brush or roller with 1/8" nap. Apply at sufficient thickness and avoid repeating rolling to have good levelling.

Temperature : Min 5 °C ; Max 50 °C

Humidity	:	Maximum 85 % R.H.
For Airless spray	:-	
Tip Size	:	Graco 621, 623 or equivalent
Paint Output pressure	:	14.7 – 17.7 MPa (g)
Viscosity	:	1.5 ~ 2.0 Pa.s
Thinning	:	0 – 10 % by volume

Surface Preparation

General :

Surfaces must be clean and dry, all contaminants like dirt, dust, oil must be removed by appropriate method to ensure good adhesion.

Abrasive blast clean

Abrasive blast clean to Sa 2.5 (ISO-8501) or SSPC-SP6. In case of hydro blasting or hydro jetting to remove existing coating, ginger rust should be removed and blow dry before application. Surface profile must be a minimum of 50 microns.

Shop primed steelwork

Weld seam and damaged area should be cleaned to a minimum St3 or SSPC-SP3. The shop primed steelwork should be repaired for any rust and free from any contaminant with suitable secondary surface preparation such as spot blast, sweeping or power tooling.

Performance Data

Properties	Test Method	Evaluation
Pull off Strength	ASTM D4541-02	> 20kgf/cm ² (2Mpa)
Salt Spray (5% NaCl solution)	ASTM B117	1500hrs, passed C5M, as system
Humidity (50 °C, 100% RH)	ASTM D1748	1000hrs, passed C5M, as system

Safety Precaution and Clean-up

Safety : Read and follow the material safety data sheet (MSDS) before use. Employ normal safety precaution. Put on necessary personal protection equipment when handle and use this product.

Ventilation : when working in a confined workplace, thorough air ventilation must be used during and after application until the

coating is cured. The ventilation system should be effective to prevent solvent vapour concentration from reaching lower explosion limit for the product and to ensure exposure limit to the personnel to be below permissible exposure limit.

Caution : All electrical equipment and installations should be properly grounded. In areas where explosion hazard exists, workmen should use non-ferrous tools, conductive shoes and non-sparking tools.

Clean-up : Use Hana Paint epoxy thinner (Hana Thinner E) or hydrocarbon solvent for cleaning. Observe safety precaution when using the solvents. In case of spillage, absorb and dispose the material and used container according to local required regulation or through licensed waste collector.

Disclaimer

Data, specifications, directions and recommendations given in this data sheet represent test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by user. The products are delivered and any technical assistance is given subject to our GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE and, unless otherwise expressly agreed in writing, manufacturer and seller assume no liability in excess of that stated therein for results obtained, injury, direct or consequential damage incurred from the use as recommended above or otherwise.

Limited Warranty

Whilst we endeavour to ensure that all advice we give about this product is correct and manufacture according to standard quality control system, however we have no control over either the quality or condition of the substrate or many other factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of this product.