ZINKY-41

WB EPOXY ZINC RICH PRIMER

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

Zinky-41 WB Epoxy Zinc Rich Primer is a three-pack, low VOC, fast drying water-based zinc-rich epoxy primer. It provides excellent corrosion resistance and weathering resistance.

The level of zinc dust by weight present in the dried film conforms to SSPC-Paint 20 (Level 1) and ISO 12944-5. The type of zinc dust used complies with ASTM D 520 (Type II).

INTENDED USE

It is designed for use as a primer for long-life protection on steel surfaces of bridges, petrochemicals, power generations, offshore facilities, hydro facilities and port machineries in corrosive environment.

GENERAL PROPERTIES

Colour	: Grey
Gloss Level	: Matt
Volume Solid	: 58 ± 2 %
Specific Gravity	: 3.24 ± 0.05 kg/l (Mixed)
Flash Point	: Base: >100°C Hardener: >100°C Zinc Powder: Not Available Mix: >100°C
VOC	: 48 g/L (EPA Method 24)
Typical Thickness	: 60 – 90 µm dry film 103 – 155 µm wet film

SURFACE PREPARATION

All surfaces should be clean dry, and free from contamination. The surface should be assessed and treated in accordance with ISO 8504. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For optimum performance, abrasive blast clean to Sa 2½ (ISO 8501-1) or SSPC-SP10 with a surface profile of 50 – 75 microns (2 – 3 mils). If oxidation has occurred between the blasting and application of this product, the surface should be re-blasted to the specified visual standard. Surface defect revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

Damaged Area

Damage area should be prepared with abrasive blast cleaning to Sa 2½ (ISO 8501-1) or SSPC-SP10. When abrasive blasting is not possible, mechanical cleaning to St3 (ISO 8501-1) or SSPC-SP3 is acceptable. Zinky-41 should be applied over a surface that is dry and free from all contamination.

Other Surfaces

The coating may be used on other substrates. Please contact your local Nippon Paint office for more information.

CONDITION DURING APPLICATION

Avoid paint application when the temperature is below 10 °C and above 45 °C, or relative humidity is above 80 %. The temperature of steel surface must be minimum 3 °C above dew point of surrounding air.

APPLICATION GUIDE

Mixing Ratio : **BASE : HARDENER : ZINC POWDER**
2.2 : 0.8 : 1.7 (by vol)

(1) Add Hardener into Base and mix with a mechanical agitator.
(2) Add Zinc Powder into liquid mixture and stir with a mechanical agitator thoroughly.
(3) Do not add liquid to zinc powder.
(4) Materials should be sieved prior to application.

Pot Life : 25 °C
2 hours

Theoretical Coverage : 9.7 m^2/litre at 60 µm DFT
6.4 m^2/litre at 90 µm DFT

Thinner : Do not thin

Cleaner : Clean potable water or Hi-Dro Cleaner

Prior to use: Flush the equipment with Hi-Dro Cleaner or alcohol solvent, followed by a thorough rinse with water.

After use: Clean all equipment with potable water immediately, followed by Hi-Dro Cleaner.

APPLICATION METHOD

Conventional air and airless spray are recommended for application. Brush and roller are recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

APPLICATION DETAILS

Airless Spray : Tip Size : 0.015" – 0.021"
Pressure at nozzle : 120 – 150 bar

Drying Time :

Substrate Temperature	25 °C	40 °C
Surface Dry	1 hr	30 mins
Through Dry	3 hrs	1.5 hrs

Cured	7 days	5 days
Dry to Overcoat (min)	3 hrs	2 hrs
Dry to Overcoat (max)	Extended	

Where an "extended" overcoating time is stated, consult Nippon Paint Protective Coatings for recommended surface preparation to achieve optimal intercoat adhesion.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

RECOMMENDED COATING SYSTEM

The following coating systems are recommended for Zinky-41 WB Epoxy Zinc Rich Primer:

Intermediate:
- Hi-Dro 63-01 Universal Epoxy
- Hi-Dro 63-02 Epoxy MIO

Top Coat:
- Hi-Dro 65-01 Polyurethane Top Coat

For the choice of coating system for different application, refer to the product brochure or contact Nippon Paint for professional recommendation.

PACKAGING

Unit	Base		Hardener		Zinc Powder	
	Volume	Container Size	Volume	Container Size	Volume	Container Size
4.7 L	2.2 L	5 L	0.8 L	1 L	1.7 L	5 L

STORAGE

Shelf Life
Base : 12 months (25 °C) minimum
Hardener : 12 months (25 °C) minimum
Zinc Powder : 12 months (25 °C) minimum

Subject to re-inspection thereafter. Higher temperature during storage may reduce the shelf life and may lead to gelling in the tin. Frequent temperature cycles may also shorten the shelf life.

Store in tightly closed container in a dry, cool and well-ventilated space, keep away from sources of heat and ignition.

SAFETY PRECAUTION

- This product is intended for use of professional applicators. Refer to the safety information display on the container and in the safety data sheet (SDS) before using the product.
- Use this product in well-ventilated area, avoid skin contact, spillage on the skin should immediately be removed with suitable cleanser, soap and water.
- Eye should be well flush with water and seek for medical attention immediately upon contact with this product.
- During the application, naked flame, welding operation and smoking is not allowed. Adequate ventilation should be provided.
- If you have any doubt regarding the suitability of use, refer to Nippon Paint for further advice.

DISCLAIMER

The information in this data sheet is given to the best of Nippon Paint's knowledge and practical experience. Users may consult with Nippon Paint on the general suitability of the product for their needs and specific application practices though it remains each user's responsibility to determine the suitability of the product for the user's particular use. The condition of the substrate and application are not within Nippon Paint's control. Therefore, no implied conditions, warranties or other terms will apply to the Product. Nippon Paint does not and cannot warrant the results which the user may obtain by using the product. In no event will Nippon Paint be liable to the user for any kind of loss (whether direct or indirect) even if Nippon Paint was previously advised of it. In line with Nippon Paint's policy for continuous development, Nippon Paint reserves the right to modify the product and the information in this data sheet without prior notice. It is the user's responsibility to check with Nippon Paint for the latest version of this data sheet. This data sheet has been translated into various languages. In the event of any inconsistency, the English version shall prevail.