



HI-PON 20-03 EPOXY RED OXIDE PRIMER

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

Hi-Pon 20-03 Epoxy Red Oxide Primer is a two-pack amine-adduct cured epoxy primer designed for use as a high performance primer for many types of surfaces i.e. aluminium, galvanizing, steelwork, concrete, GRP and phenolic sheeting.

INTENDED USE

As a primer for long term corrosion of both ferrous and non ferrous surfaces within the civil engineering and building industry, and as lining systems for potable water, chemical and fuel storage tanks, palm oil derivatives and vegetable oil.

GENERAL PROPERTIES

Colour	: Reddish Brown
Gloss Level	: Matt
Volume Solids, %	: 50 ± 2 %
Specific Gravity	: 1.20-1.40 kg/l (Mixed)
Flash point	: Base: 22°C Hardener: 24°C Mix: 21°C
VOC	: 488 g/L (mix, by calculation)
Typical Thickness	: 60 – 80 μm dry film : 120 – 160 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

Abrasive blast cleaning to Sa 2½ (ISO 8501-1:2007) to achieve surface profile 50 – 85 μm. 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.

Shop Primer Surface

This product is suitable for application to the unweathered steelwork freshly coated with Zinc silicate shop primers. If the Zinc shop primer shows extensive or widely scattered breakdown or excessive zinc corrosion, overall sweep blasting will be necessary. Other types of shop primer are not suitable for over coating and will required complete removal by abrasive blast cleaning. Weld seams and damaged areas should be blast cleaned to Sa 2½ (ISO 8501-1:2007).

Damaged Area



HI-PON 20-03 EPOXY RED OXIDE PRIMER

TECHNICAL DATA SHEET

Damage area should be prepared with abrasive blast cleaning to Sa 2½ (ISO 8501-1:2007). When abrasive blasting in small area is not possible, mechanical cleaning to St 3 (ISO 8501-1:2007) is acceptable. After the surface preparation, the application of Hi-Pon 20-03 can be performed.

Hi-Pon 20-03 should be applied over a surface that is dry and free from all contamination and must be applied within the overcoating intervals specified (refer to application section for details).

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 relative humidity is over 85%. The temperature of steel surface must be a minimum 3°C above dew point of surrounding air.

APPLICATION GUIDE

Mixing Ratio	: Base: hardener = 9:1 (by volume) Base and hardener should be mixed thoroughly before use.
Pot Life	: 25°C 6 - 7 Hrs
Theoretical Coverage	: 6.2 m ² /litre at 80µm DFT
Thinner	: Hi-Pon Epoxy Thinner

APPLICATION METHOD

Brush and roll is suitable for stripe coating and very small areas. For best result, use airless spray. Care must be taken to achieve the specified dry film thickness.

APPLICATION DETAILS

Airless Spray	: Tip Size	: 0.017" – 0.031"	
	: Pressure at nozzle	: 140 – 170 kg/cm ²	
Typical Thickness	: 60 – 80 µm dry film		
	: 120 – 160 µm wet film		
Drying Time	: Substrate Temperature	: 25°C	40°C
	: Surface Dry	: 1hr	0.5hrs
	: Through Dry	: 6hrs	3hrs
	: Cured	: 7days	3days



HI-PON 20-03 EPOXY RED OXIDE PRIMER

TECHNICAL DATA SHEET

Dry to recoat (min) : 6hrs 3hrs
Dry to recoat (max) * : Extended

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

RECOMMENDED PAINTING SYSTEM

The following Intermediate/Topcoats are recommended for Hi-Pon 20-03:

Intermediate

- Hi-Pon 20-04 STE 80
- Hi-Pon 20-04 STE MIO 80
- Hi-Pon 30-01 Epoxy Midcoat 70
- Hi-Pon 30-02 Epoxy MIO 80
- Hi-Pon 30-03 Epoxy Midcoat 80
- Hi-Pon 30-04 Epoxy MIO 70

Topcoat

- Hi-Pon 40-02 Epoxy Top Coat
- Hi-Pon 40-04 Epoxy Top Coat
- Hi-Pon 50-01 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	
	Vol	Container Size	Vol	Container Size
5L	4.5L	5L	0.5L	1L
20L	18L	20L	2L	2.5L

STORAGE

Shelf life : Part A: 12 months (25°C)
Part B: 12 months (25°C)

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

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



HI-PON 20-03 EPOXY RED OXIDE PRIMER

TECHNICAL DATA SHEET

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.