**PRODUCT DESCRIPTION**

Hi-Pon 20-09 Epoxy Shop Primer FD is a two-pack, fast drying amide-cured epoxy prefabrication primer.

**INTENDED USE**

As a pre-construction primer on blast cleaned steel surfaces in automatic shop-priming plants to protect steel during transportation, storage and production.

Provides corrosion protection up to 5 months at 25 to 35 microns (Depending on the types of exposure conditions and blasting profile).

Suitable as a holding primer for corrosion classes, ISO 12944.

**GENERAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Reddish Brown</td>
</tr>
<tr>
<td>Gloss Level</td>
<td>Matt</td>
</tr>
<tr>
<td>Volume Solids, %</td>
<td>30 ± 2 %</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.23 - 1.33 kg/l (Mixed)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Base: -3°C, Hardener: 7°C, Mix: -3°C</td>
</tr>
<tr>
<td>VOC</td>
<td>585 g/L (EPA Method 24)</td>
</tr>
<tr>
<td>Typical Thickness</td>
<td>25 – 35 µm dry film</td>
</tr>
<tr>
<td></td>
<td>83 – 117 µm wet film</td>
</tr>
</tbody>
</table>

**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) or SSPC-SP6. For optimum performance, blast cleaned to 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.

**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 or relative humidity exceeds 85%. The Steel surface temperature must be minimum 3°C above dew point of the surrounding air.
Mixing Ratio: Base : Hardener = 18 : 0.4 (by volume)
Base and hardener should be mixed thoroughly before use.

Pot Life: 25°C
24 hours

Theoretical Coverage:
- 12.0 m²/litre at 25 µm DFT
- 8.6 m²/litre at 35 µm DFT

Thinner: Hi-Pon Epoxy Thinner

Conventional air or 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.

Airless Spray:
- Tip Size: 0.015" – 0.021"
- Pressure at nozzle: 100 - 150 kg/cm²

Typical Thickness:
- 25 – 35 µm dry film
- 83 – 117 µm wet film

Drying Time:
- Substrate Temperature: 25°C – 40°C
- Surface Dry: 2 mins – 30 sec
- Through Dry: 8 mins – 4 mins
- Cured: 7 days – 3 days
- Dry to recoat (min): 6 hrs – 4 hrs
- 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.

The following coating systems are recommended for Hi-Pon 20-09 Epoxy Shop Primer FD:

Intermediate
- Hi-Pon 20-04 STE 80
- Hi-Pon 20-04 STE IM 80
HI-PON 20-09 EPOXY SHOP PRIMER FD

TECHNICAL DATA SHEET

- Hi-Pon 20-10 Epoxy Zinc Phosphate 63
- Hi-Pon 30-02 Epoxy MIO 80
- Hi-Pon 30-03 Epoxy Midcoat 80

Topcoat
- Hi-Pon 40-02 Epoxy Top Coat
- Hi-Pon 40-04 Epoxy Top Coat
- Hi-Pon 50-01 Polyurethane Top Coat
- Hi-Pon 50-03 Polyurethane Top Coat

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

<table>
<thead>
<tr>
<th>Unit</th>
<th>Base Vol</th>
<th>Container Size</th>
<th>Hardener Vol</th>
<th>Container Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.4 L</td>
<td>18 L</td>
<td>20 L</td>
<td>0.4 L</td>
<td>1 L</td>
</tr>
</tbody>
</table>

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. 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.

- 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.

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 for further advice.
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.