

PRODUCT DESCRIPTION

Hi-Pon 90-07 Epoxy Glass Flake HB is a two-pack, high build, high solids epoxy coating, reinforced with high level of chemically resistant glass flakes. It has excellent corrosion, impact and abrasion resistance. Suitable for properly prepared carbon steel and shop primed steel in both atmospheric and immersed environments.

INTENDED USE

It is designed for use in highly corrosive environments where high mechanical strength is required, such as areas in the splash or tidal zones. Recommended for offshore environments, refineries, power plants, bridges, mining equipment and general structural steels. Compatible with cathodic protection systems.

GENERAL PROPERTIES

Colour	: Black
Gloss Level	: Not Applicable
Volume Solid	: 93 ± 3 %
Specific Gravity	: 1.41 ± 0.05 kg/l (Mixed)
Flash Point	: Base: 23 °C Hardener: 23 °C Mix: 23 °C
VOC	: 72 g/L (EPA Method 24)
Typical Thickness	: 500 – 1000 µm dry film 537 – 1075 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 75 – 100 microns (3 – 4 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.

Shop Primed Surface

This product is suitable for application to the unweathered steelwork freshly coated with approved shop primers. 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) or SSPC-SP10, to achieve surface profile 50 – 75 µm.

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 above 85 %. The temperature of steel surface must be minimum 3 °C above dew point of surrounding air.

APPLICATION GUIDE

Mixing Ratio : **BASE** : **HARDENER**
3.5 : 1 (by volume)

Base and hardener should be mixed thoroughly before use with a mechanical agitator

Pot Life : 25 °C
55 mins

Theoretical Coverage : 1.86 m²/litre at 500 µm DFT
0.93 m²/litre at 1000 µm DFT

Thinner : Hi-Pon Epoxy Thinner

Cleaner : Hi-Pon Epoxy Thinner

APPLICATION METHOD

Airless spray is 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 : 0.036" – 0.045"
Pressure at nozzle : > 220 bar

Note: Filters should be removed from spray equipment prior to spraying because of glass flake.

Drying Time	: Substrate Temperature	<u>25 °C</u>	<u>40 °C</u>
	Surface Dry	4.5 hrs	2 hrs
	Through Dry	10 hrs	5 hrs
	Cured	7 days	4 days
	Dry to Overcoat (min)	10 hrs	5 hrs
	Dry to Overcoat (max)	7 days	4 days

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.

HEAT RESISTANCE

Dry, Atmospheric

- Continuous : 80 °C
- Minimum : - 40 °C
- Intermittent : 100 °C

Wet, Immersed

- Fresh Water : 50 °C

Intermittent temperature duration – 1 hour maximum

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures. Heat resistance is influenced by the total coating system. If used as part of a system, ensure all coatings in the system have similar heat resistance.

RECOMMENDED COATING SYSTEM

Hi-Pon 90-07 is normally applied directly to steel; however, it can also be applied over the following primers:

Shop Primer:

- Zinky-10 Inorganic Zinc Shop Primer

Primer:

- Hi-Pon 20-03 Epoxy Red Oxide Primer
- Hi-Pon 20-04 STE IM 80
- Hi-Pon 20-10 Epoxy Zinc Phosphate 63

Top Coat:

- Hi-Pon 40-04 Epoxy Top Coat
- Hi-Pon 50-01 AS Polyurethane Top Coat
- Hi-Pon 50-03 Polyurethane Top Coat
- Hi-Pon 50-07 Polysiloxane Top Coat

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

PACKAGING

<u>Unit</u>	<u>Base</u>		<u>Hardener</u>	
	Volume	Container Size	Volume	Container Size
18 L	14 L	20 L	4 L	5 L

STORAGE

Shelf Life Base : 12 months (25 °C)
 Hardener : 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.

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.