

**PRODUCT DESCRIPTION**

**Hi-Pon 50-09 Polyester PU Top Coat** is a two-pack, polyester polyurethane finish coat. It offers excellent flexibility, abrasion, and durability properties.

**INTENDED USE**

It is specially designed for use on glass fiber reinforced plastic (GFRP). Suitable for use in both new construction and as an industrial maintenance finish in a wide range of environments including offshore structures, wind rotor blades, refineries, power plants, bridges, transportation vehicles and buildings.

**GENERAL PROPERTIES**

<b>Colour</b>	: White & Selected Range of Colours
<b>Gloss Level</b>	: Low-Gloss
<b>Volume Solid</b>	: 60 ± 2 %
<b>Specific Gravity</b>	: 1.32 ± 0.05 kg/l (Mixed) – depending on colours
<b>Flash Point</b>	: Base: 13.3 °C Hardener: 140 °C Mix: 13.3 °C
<b>VOC</b>	: 276 g/L (EPA Method 24)
<b>Typical Thickness</b>	: 50 – 75 µm dry film 83 – 125 µm wet film

**SURFACE PREPARATION**

All surfaces to be coated should be clean, dry and free from contamination. Oil or grease should be removed prior to paint application. The surfaces should be cleaned thoroughly of all dust, using a vacuum or clean dry compressed air to blow while wiping with clean, oil free, and dry cotton cloths. Remember to clean before sanding. Sanding often melts greases and oils into the surface making it impossible to obtain a clean surface.

Filler Surfaces

Always thoroughly clean the surfaces before sanding. When sanding or grinding, work in areas with adequate ventilation, maintaining a continuous flow of fresh air. Proper sanding promotes adhesion for next coat. Excessive sanding or using too coarse grit can open pores in the surface or create a sanding scratch profile too deep to be filled by the next product to be applied. A sanding paper of grit 100-180 is recommended on the filler surfaces. Clean and blow any remaining particles prior to apply Hi-Pon 50-10 Polyester PU Primer and Hi-Pon 50-09 Polyester PU Top Coat.

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. After the surface preparation, patch suitable primer prior to the application of Hi-Pon 50-09.

#### 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 : 1 (by volume)

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

**Pot Life** : 25 °C  
2 hours

**Theoretical Coverage** : 12.0 m<sup>2</sup>/litre at 50 µm DFT  
8.0 m<sup>2</sup>/litre at 75 µm DFT

**Thinner** : Hi-Pon PU Thinner

**Cleaner** : Hi-Pon PU Thinner

#### 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 : 0.013" – 0.021"  
Pressure at nozzle : 150 – 170 bar

<b>Drying Time</b>	: Substrate Temperature	<u>25 °C</u>	<u>40 °C</u>
	Surface Dry	3 hrs	2 hrs
	Through Dry	8 hrs	4 hrs
	Cured	7 days	4 days
	Dry to Overcoat (min)	8 hrs	4 hrs
	Dry to Overcoat (max)	Extended	

**Remarks:** 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.

### HEAT RESISTANCE

#### Dry, Atmospheric

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

The following coating systems are recommended for Hi-Pon 50-09 Polyester PU Top Coat:

#### **Pore Filler (Optional)**

- NAX 2K Extra Fine Putty 869
- NP Polyester Putty

#### **Primer:**

- Hi-Pon 20-03 Epoxy Red Oxide Primer
- Hi-Pon 20-07 Zinc Phosphate Primer 70
- Hi-Pon 50-10 Polyester PU Primer

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>	
	<u>Volume</u>	<u>Container Size</u>	<u>Volume</u>	<u>Container Size</u>
<b>4 L</b>	3 L	5 L	1 L	1 L
<b>20 L</b>	15 L	20 L	5 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.

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**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.
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**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.