



# HI-PON 50-02 POLYURETHANE TOP COAT

TECHNICAL DATA SHEET

## PRODUCT DESCRIPTION

**Hi-Pon 50-02 Polyurethane Top Coat** is a two component, fast dry, and hydroxyl acrylic polyurethane topcoat, providing excellent resistance of weathering, water and chemicals.

## INTENDED USE

As long term protection of high performance topcoat, widely used for bridges, petrochemicals, power generations, steel structures, wind power, port machineries and offshore facilities etc under medium or heavy corrosion environment.

## GENERAL PROPERTIES

<b>Colour</b>	: Color range based on assortment list
<b>Gloss Level</b>	: High gloss
<b>Volume Solids, %</b>	: 55 ± 2 %
<b>Specific Gravity</b>	: 1.17 kg/l (white, mixed)
<b>Flash point</b>	: Base: 24°C Hardener: 37°C Mix: 24.5°C
<b>VOC</b>	: 438 g/L (mix, by calculation)
<b>Typical Thickness</b>	: 40 – 60 µm dry film : 75 – 110 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.

### Damaged Area

Damage area should be prepared with abrasive blast cleaning to Sa 2½ (ISO 8501-1:2007). When abrasive blasting is not possible, mechanical cleaning to St 3 (ISO 8501-1:2007) is acceptable. After the surface preparation, patch primer prior to the application of Hi-Pon 50-02.

Hi-Pon 50-01 should always be applied over a recommended anti-corrosive coating scheme for metal surface. The primer surface should be dry and free from oil and other contaminations. It 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 0°C or above 45°C and relative humidity is over 80%. The temperature of steel surface must be a minimum 3°C above dew point of surrounding air.



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## APPLICATION GUIDE

**Mixing Ratio** : Base: hardener 7 : 1 (by weight)  
6.2 : 1 (by volume)

Base and hardener should be mixed thoroughly before use.

**Pot Life** : 25°C  
6 Hrs

**Theoretical Coverage** : 11.0 m<sup>2</sup>/ litre at 50µm DFT

**Thinner** : Hi-Pon 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 : 0.011" – 0.018"  
Pressure at nozzle : 100 – 150 kg/cm<sup>2</sup>

**Typical Thickness** : 40 – 60 µm dry film  
: 75 – 110 µm wet film

**Drying Time** : Substrate Temperature : 10°C 25°C 40°C  
Surface Dry : 2.0hrs 0.75hrs 0.5hrs  
Through Dry : 40hrs 20hrs 10hrs  
Cured : 14days 7days 3days  
Dry to recoat (min) : 40hrs 20hrs 10hrs  
Dry to recoat (max) : None

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 PAINTING SYSTEM

The following Primer/Intermediate are recommended for Hi-Pon 50-02:

### Primer

- Hi-Pon 20-01 Epoxy Primer
- Zinky-21 Epoxy Zn rich primer 70
- Zinky-22 Epoxy Zn rich primer 80



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## Intermediate

- Hi-Pon 30-02 Epoxy MIO 80
- Hi-Pon 30-03 Epoxy Midcoat

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	
	Weight	Container Size	Weight	Container Size
20kg	17.5kg	18L	2.5kg	4L

## 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.

## 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

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