



HI-PON 50-01 POLYURETHANE TOP COAT

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

Hi-Pon 50-01 Polyurethane Top Coat is two-component, high-build, glossy Aliphatic Acrylic polyurethane coating while incorporating an extensive range of performance characteristics. It provides a highly durable, gloss level and colour retention top coat finish.

INTENDED USE

Hi-Pon 50-01 when applied over such proven priming systems, offers outstanding operational performance including abrasion, chemical and impact resistance and colour/ gloss retention.

GENERAL PROPERTIES

Colour	: Standard colours as per colour cards. Special colours available upon request
Gloss Level	: High-gloss
Volume Solids, %	: 60 ± 2 %
Specific Gravity	: 0.98-1.25 kg/l (Mixed) depending on colours
Flash point	: Base: 32°C Hardener: 48°C Mix: 33°C
VOC	: 386 g/L (mix, by calculation)
Typical Thickness	: 50 - 80µm dry film : 80 - 130µm 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 50-01.

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 all contamination and Hi-Pon 50-01 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.



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APPLICATION GUIDE

Mixing Ratio	: Base: hardener = 4:1 (by volume) Base and hardener should be mixed thoroughly before use.
Pot Life	: 25°C 5 Hrs
Theoretical Coverage	: 12.0 m ² /litre at 50µm DFT
Thinner	: Hi-Pon PU 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	: 140 – 170 kg/cm ²
Typical Thickness	: 50 - 80µm dry film : 80 - 130µm wet film	
Drying Time	: Substrate Temperature	: 25°C 40°C
	Surface Dry	: 1hr 0.5hrs
	Through Dry	: 8hrs 4hrs
	Cured	: 5days 2days
	Dry to recoat (min)	: 5hrs 2.5hrs
	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 Primer/Intermediate are recommended for Hi-Pon 50-01:

Primer

- Zinky-11 Inorganic ZN Rich Primer 90
- Zinky-12 Inorganic ZN Rich Primer 77
- Zinky-13 Inorganic ZN Rich Primer 85



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- Zinky-21 Epoxy ZN Rich Primer 77
- Zinky-22 Epoxy ZN Rich Primer 80
- Zinky-23 Epoxy ZN Rich Primer 85
- Zinky- 25 Epoxy ZN Primer 45
- Zinky- 26 Epoxy ZN Primer 65
- Hi-Pon 20-01 Epoxy Primer
- Hi-Pon 20-03 Epoxy Red Oxide Primer
- Hi-Pon 20-04 STE 80
- Hi-Pon 20-04 STE AL 80
- Hi-Pon 20-04 STE GF 80
- Hi-Pon 20-04 STE MIO 80
- Hi-Pon 20-07 Epoxy Zinc Phosphate 70
- Hi-Pon 20-10 Epoxy Zinc Phosphate 63

Intermediate

- Hi-Pon 20-04 STE 80
- Hi-Pon 20-04 STE AL 80
- Hi-Pon 20-04 STE GF 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

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	4L	5L	1L	1L
20L	16L	20L	4L	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.



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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.

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.