

**PRODUCT DESCRIPTION**

**Hi-Dro 63-01 Universal Epoxy** is a two-pack, high performance, self-priming water-based epoxy coating. It has excellent adhesion and good corrosion resistance for use as a direct-to-metal primer or as an intermediate. Suitable for properly prepared carbon steel, aluminum and concrete.

**INTENDED USE**

It is designed for both new construction and general maintenance use in moderate industrial environments for the corrosion protection of equipment and other steel surfaces. Can be used as primer, mid coat, finish coat or as a single coat in atmospheric environments. Recommended for commercial infrastructure, refineries, power plants, warehouses and general structural steels.

- Tested in accordance to evaluation criteria of Singapore Green Building Product Labelling Scheme

**GENERAL PROPERTIES**

<b>Colour</b>	: White, Grey & Limited Range of Colour
<b>Gloss Level</b>	: Matt
<b>Volume Solid</b>	: 50 ± 2 %
<b>Specific Gravity</b>	: 1.59 ± 0.10 kg/l (Mixed) – depending on colours
<b>Flash Point</b>	: Base: >100 °C Hardener: >100 °C Mix: >100 °C
<b>VOC</b>	: 69 g/L (EPA Method 24)
<b>Typical Thickness</b>	: 50 – 120 µm dry film 100 – 240 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 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.

**Concrete Substrates**

New concrete shall be properly cured prior to coating application. All surfaces should be clean and free from laitance, curing compounds, release agents, efflorescence, grease, oil, dirt, organic growth, old coatings and loose or disintegrating concrete. Surface preparation should be done in accordance to

SSPC-SP13 / NACE No. 6. A suitable primer or sealer is required prior to coating application.

#### Non-Ferrous Surfaces

Ensure surface is clean, dry and free from metal corrosion products. For optimum performance, brush blast to Sa 1 (ISO 8501-1) or SSPC-SP7 or abrade using coarse emery paper following treatment as described above.

#### 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. Hi-Dro 63-01 should be applied over a surface that is dry and free from all contamination.

#### 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**  
4 : 1 (by volume)

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

**Pot Life** : 25 °C  
2 hours

**Theoretical Coverage** : 10.0 m<sup>2</sup>/litre at 50 µm DFT  
4.17 m<sup>2</sup>/litre at 120 µm DFT

**Thinner** : Clean potable water

**Cleaner** : -

#### 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 : 0.015" – 0.025"  
Pressure at nozzle : 150 – 200 bar

**Drying Time** : Substrate Temperature 25 °C 40 °C

**TECHNICAL DATA SHEET**

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Surface Dry	1 hr	45 mins
Through Dry	7 hrs	3 hrs
Cured	7 days	5 days
Dry to Overcoat (min)	7 hrs	3 hrs
Dry to Overcoat (max)	30 days	30 days
Dry to Recoat (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.

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**HEAT RESISTANCE****Dry, Atmospheric**

- Continuous : 100 °C
- Minimum : - 40 °C
- Intermittent : 120 °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.

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**RECOMMENDED  
COATING SYSTEM**

The following coating systems are recommended for Hi-Dro 63-01 Universal Epoxy:

**Primer:**

- Zinky-41 WB Epoxy Zinc Rich Primer

**Top Coat:**

- Hi-Dro 60-01 Acrylic Sheen Top Coat
- Hi-Dro 60-02 Acrylic Gloss Top Coat
- Hi-Dro 65-01 Polyurethane 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>	
	<u>Volume</u>	<u>Container Size</u>	<u>Volume</u>	<u>Container Size</u>
5 L	4 L	5 L	1 L	1 L
20 L	16 L	20 L	4 L	5 L

**STORAGE**

**Shelf Life**      Base : 6 months (25 °C) minimum  
                         Hardener : 12 months (25 °C) minimum

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

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