



# HI-PON 600HT TOP COAT

## TECHNICAL DATA SHEET

### PRODUCT DESCRIPTION

**Hi-Pon 600HT Top Coat** is a one-pack, silicone based coating which can withstand dry heat temperature up to 540°C.

The moisture curing crosslinking mechanism for dry heat resistance allows multiple coats to be applied without heat curing.

### INTENDED USE

It is designed for use as a top coat for long-term corrosion protection of steel exposed to high temperature (below 540°C). Suitable for use in exhaust manifolds, furnaces, boiler, chimneys and other installations exposed to high temperatures.

### GENERAL PROPERTIES

<b>Colour</b>	: Aluminium (up to 540°C) Black (up to 400°C)
<b>Gloss Level</b>	: Semi-Gloss
<b>Volume Solids, %</b>	: 40 ± 2%
<b>Specific Gravity</b>	: 1.11 – 1.21 kg/l, depending on colours
<b>Flash point</b>	: 7°C
<b>VOC</b>	: 506 g/l (EPA Method 24)
<b>Typical Thickness</b>	: 20 – 30 µm dry film : 50 – 75 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 600HT Top Coat.

Hi-Pon 600HT Top Coat would not normally be applied directly to steel surface and would only be considered where corrosion problems were insignificant but decoration important. For optimum anti-corrosive performance, priming with Zinky-13 Inorganic Zinc Rich Primer 85 is recommended. It should be applied over a surface that is dry and free from dirt, grease, oil and other contaminants and 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.



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### 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.

### APPLICATION GUIDE

<b>Mixing</b>	: Mixed thoroughly before use with a power agitator.
<b>Theoretical Coverage</b>	: 20.0 m <sup>2</sup> /litre at 20 µm DFT 13.3 m <sup>2</sup> /litre at 30 µm DFT
<b>Thinner</b>	: Hi-Pon HT Thinner
<b>Thinning</b>	: For mist coat application, use 10 – 15 % thinner for dilution

### 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

<b>Airless Spray</b>	: Tip Size	: 0.015" – 0.017"
	: Pressure at nozzle	: 140 – 170 kg/cm <sup>2</sup>

<b>Typical Thickness</b>	: 20 – 30 µm dry film
	: 50 – 75 µm wet film

Maximum thickness per single coat without subsequent blistering on heating is 40 microns (1.6 mil). Up to 3 coats at a maximum of 25 microns (1 mil) per coat can be applied without the requirement of heating between coats. This provides maximum corrosion protection when it is not possible to use a zinc silicate priming system.

<b>Drying Time</b>	: Substrate Temperature	: 25°C	40°C
	Surface Dry	: 0.5 hrs	0.2 hrs
	Through Dry	: 2 hrs	1 hrs
	Dry to recoat (min)	: 2 hrs	1 hrs
	Dry to recoat (max)	:30 days	14 days

Freshly applied Hi-Pon 600HT Top Coat may have slightly reduced mechanical properties. This effect can however be overcome by heating the paint system to 200°C for 1 hour.

Due to differences in the thermal stability of pigments, slight colour changes can occur when the coating is heated but it will not affect the performance of the coating.



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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 primers are recommended for Hi-Pon 600HT Top Coat:

#### Primer

- Zinky-12 Inorganic Zinc Rich Primer 77
- Zinky-13 Inorganic Zinc Rich Primer 85

**Remarks:** For maximum corrosion resistance, use a zinc silicate primer.

The following coating systems are recommended:

#### Coating System 1

- Hi-Pon 600HT Top Coat, 3 coats x 25  $\mu\text{m}$  dry film thickness

#### Coating System 2

- Zinky-13 Inorganic Zinc Rich Primer 85, 1 coat x 50  $\mu\text{m}$  dry film thickness
- Hi-Pon 600HT Top Coat, mist coat x 15  $\mu\text{m}$  dry film thickness
- Hi-Pon 600HT Top Coat, 1 coat x 30  $\mu\text{m}$  dry film thickness

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

### PACKAGING

Unit	Vol	Container Size
4.8 L	4.8 L	5 L

### STORAGE

**Shelf life** : 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.

### DISCLAIMER

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