

NIPPON PAINT 600 HIGH TEMPERATURE PRIMER
Updated Jul' 25

NIPPON PAINT 600 HIGH TEMPERATURE PRIMER is a silicone based coating which can withstand continuous temperature up to **600°C**. It is suitable for use on steel as a primer prior to application of final paint system. It is recommended for use in combination with HI-PON 600HT High Temperature Finish.

Product Features:

- Withstand continuous temperature up to 600°C
- Available in Light Grey Colour

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent based	Interior & Exterior	Matt	Iron and Steel	5 Litres

Composition

Pigment	: Aluminium & Black
Binder	: Silicone
Thinner	: Aromatic

Technical Data

Drying Time (25-30°C)	: Touch Dry : Approximately 0.5 hour (Dependent on temperature and humidity) : Hard Dry : At least 1 hour x 200 °C for full curing
Overcoating Time (25-30°C)	: Minimum 2 hours (Dependent on temperature and humidity)
Typical Thickness	: 20 - 30 µm dry film per coat (Keep below 40 µm DFT to prevent blistering) 50 - 75 µm wet film per coat
No. of Coats	: 1 - 2 coats
Theoretical Coverage	: 20.0 m ² /litre (for dry film thickness of 20 microns) 13.3 m ² /litre (for dry film thickness of 30 microns)
Practical Coverage (40% Loss Factor, as a guideline)	: 12.0 m ² /litre (for dry film thickness of 20 microns) 8.0 m ² /litre (for dry film thickness of 30 microns)
Volume Solid	: 40 ± 2% by volume
Specific Gravity	: 0.98 - 1.35, depending on colours
Shelf Life	: Up to 24 months in tight sealed container (Subjected to reinspection after exceeding shelf-life period)

Application Method

Thinner	: OP-1 Thinner
Brush/ Roller	: If necessary, add about 5% thinner by volume.
Compressed Air Spray	: If necessary, add about 10% to 15% thinner by volume.
Airless Spray	: Delivery pressure : 140 – 170 kg/cm ² : Tip size : 0.015" – 0.017" : Spray angle : 60° - 70° : Dilution : Up to 5% thinner by volume

Recommended Coating System
Iron and Steel

Primer	: Nippon Paint 600 High Temperature Primer	: 1 Coat
Intermediate	: Nippon Paint 600 High Temperature Finish	: 1 Coat
Top Coat	: Nippon Paint 600 High Temperature Finish	: 1 Coat

Surface Preparation

For steel, the surface to be painted shall be power tool cleaned to minimum **SSPC-SP3 or St 3 ISO 8501- 1:2007**, free from mill scale. For optimum performance, abrasive blasting to **SSPC-SP10 or Sa 2½ ISO 8501-1 : 2007** is recommended prior to application of paint. It must be dry and free from dirt, grease, oil and other contaminants before application of the following paint. For galvanised and light alloys, thorough degreasing is necessary. All surfaces must be clean and dry before the paint is applied on.

Cleaning

Cleaning Solvent : OP-1 Thinner.

All equipment should be cleaned IMMEDIATELY with thinner after use. For thinning, substitute thinners other than those approved or supplied by Nippon Paint may adversely affect the product performance and void product warranty whether expressed or implied.

Tests

1. **ASTM D3359** on Adhesion of Paint by Tape Test
2. **ISO 3251** on Non-Volatile Matter
3. **ISO 9227** on Salt Spray Test
4. **ASTM D2485-91** on Heat Resistance Properties at High Temperature Service

Environmental Conditions During Application

- Do not apply when the relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.
- Do not apply at temperature below 7°C. If not, drying and overcoating times will be considerably extended.
- During application of the paint, naked flame, welding operations and smoking should not be allowed and good ventilation is necessary.

Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good ventilation during application and drying.
- During application of paint, naked flames, welding operation, and smoking should not be allowed.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.
- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose of any paint waste in accordance with the appropriate Environment Quality Regulations.

Note

* Theoretical Coverage is based on a mathematical formula and does not consider Loss Factor.

$$\left[\frac{\text{Volume Solid \%} \times 10}{\text{Dry Film Thickness } (\mu)} \right] = \text{m}^2/\text{lit}/\text{coat}$$

This theoretical coverage rate has been calculated from the volume solids of the material and is related to the amount of coating applied onto a perfectly smooth surface without wastage. For a practical coverage rate, due allowance should be made for atmospheric conditions, surface roughness, geometry of the article being coated, the skill of applicator, method of application etc. when estimating quantities required for a particular job.

The above information is given to the best of our knowledge based on laboratory tests and practical experience.

However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself.

We reserve the right to alter the given without prior notice.

Disclaimer

The information contained in this document is provided to the best of Nippon Paint's knowledge, based on laboratory testing and practical experience. As our products are considered semi-finished goods, their performance may be influenced by conditions beyond Nippon Paint's control. As such, we can only guarantee the quality of the product itself. Minor variations may be introduced to comply with local regulations. Nippon Paint reserves the right to modify the information in this document without prior notice.

Users are encouraged to consult Nippon Paint for specific guidance on the suitability of this product for their intended use and application method.

In case of discrepancies between language versions, the English (United Kingdom) version shall prevail.