

NIPPON PAINT PCB FINISH
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NIPPON PAINT PCB Finish is an air-dry synthetic resin-based primer. Its quick drying characteristic coupled with the excellent mechanical property makes it an ideal coating for painting on mild steel surfaces.

Product Features:

- Fast dry
- Excellent mechanical property

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent based	Interior & Exterior	Glossy Limited colour	Iron and Steel	5 Litres, 20 Litres

Composition

Pigment	: Organic, inorganic pigments and extender
Binder	: Alkyd
Thinner	: Aromatic hydrocarbons

Technical Data

Drying Time (25-30°C)	: Touch Dry	: Approximately 20 minutes (Dependent on temperature and humidity)
	: Hard Dry	: 2 - 3 hours (Dependent on temperature and humidity)
Overcoating Time (25-30°C)	: Minimum 5 hours (Dependent on temperature and humidity)	
Typical Thickness	: 25 - 30 µm dry film per coat 50 - 60 µm wet film per coat	
No. of Coats	: 1 - 2 coats	
Theoretical Coverage	: 20.0 m ² /litre (for dry film thickness of 25 microns) 16.6 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 25 microns) 10.0 m ² /litre (for dry film thickness of 30 microns)	
Volume Solid	: 50 ± 2% by volume	
Specific Gravity	: 1.10 - 1.20	
Shelf Life	: Up to 24 months in tight sealed container (Subjected to reinspection after exceeding shelf-life period)	

Application Method

Brush, roller, compressed air spray and airless spray. Preferably use airless spray if a thicker coat is required in one application. Brush, roller, and compressed air spray generally lead to lower film thickness, so more applications may be required to obtain the recommended thickness per coat.

In order to ensure maximum adhesion between coats, it is important to observe that, before recoating, the applied coat is dry and free from any form of contamination. In case it rains or raining is expected, it is advisable not to do any painting. Painting under relative humidity above 85% will adversely affect the subsequent performance of the coating. Condensation occurs during or soon after application and premature early exposure to rain or ponding water could result in color and gloss change.

The optimum resistance of the coating is only attained after completion of the curing of the paint. Under average atmospheric conditions, it takes about 6 ~ 7 days. Exposure of the applied coating to severe abrasion or chemical and water spillage should therefore be avoided before completion of the curing period, the first two or three days being particularly critical.

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 PCB Primer	: 1 Coat
Intermediate	: Nippon Paint PCB Finish	: 1 Coat
Top Coat	: Nippon Paint PCB Finish	: 1 Coat

Surface Preparation
Iron and 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. It must be dry and free from dirt, grease, oil and other contaminants before application of the paint.

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. **ISO 15184** on Pencil Hardness
2. **ASTM D3359** on Adhesion of Paint by Tape Test
3. **ISO 2813** on Gloss Level
4. **ISO 4624** on Adhesion of Paint by Pull-Off Test
5. **ISO 6272-1** on Impact Resistance by Falling Weight
6. **ASTM D5402-19** on Solvent Resistance
7. **ASTM D4060** on Abrasion Resistance

8. **ISO 2812-4** on Chemical Resistance
9. **ISO 16474-3** on QUV-A for Gloss Retention Resistance
10. **ISO 3251** on Non-Volatile Matter

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 off 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.