

NIPPON PAINT ZINC PHOSPHATE PRIMER FD
Updated July'25

NIPPON PAINT ZINC PHOSPHATE PRIMER FD is an alkyd-based rust inhibitive primer for priming on iron and steel. It is recommended for iron and steel surfaces under non-immersion condition.

Product Features:

- Anti-Rust
- Fast dry
- Available in Reddish Brown, Grey Green and Light Grey Colour

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent based	Interior & Exterior	Low Gloss	Iron and Steel	1 Litre, 5 Litres, 20 Litres

Composition

Pigment	: Anti rust and Extender
Binder	: Alkyd
Thinner	: White spirit

Technical Data

Drying Time (25-30°C)	: Touch Dry : Approximately 15 minutes (Dependent on temperature and humidity)
	: Hard Dry : 4 hours (Dependent on temperature and humidity)
Overcoating Time (25-30°C)	: Minimum 8 hours (Dependent on temperature and humidity)
Typical Thickness	: 30 - 45 µm dry film per coat 55 - 85 µm wet film per coat
No. of Coats	: 1 - 2 coats
Theoretical Coverage	: 18.3 m ² /litre (for dry film thickness of 30 microns) 12.2 m ² /litre (for dry film thickness of 45 microns)
Practical Coverage (40% Loss Factor, as a guideline)	: 11.0 m ² /litre (for dry film thickness of 30 microns) 7.3 m ² /litre (for dry film thickness of 45 microns)
Volume Solid	: 55 ± 3% by volume
Specific Gravity	: 1.36 - 1.46
Shelf Life	: Up to 24 months in tight sealed container (Subjected to reinspection after exceeding shelf-life period)

Application Method

Thinner	: Nippon Paint General Purpose 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 Zinc Phosphate Primer FD	: 1 Coat
Intermediate	: Nippon Paint Protective Finish FD	: 1 Coat
Top Coat	: Nippon Paint Protective Finish FD	: 1 Coat

Primer	: Nippon Paint Zinc Phosphate Primer FD	: 1 Coat
Intermediate	: Nippon Paint Micaceous Iron Oxide	: 1 Coat
Top Coat	: Nippon Paint Protective Finish FD	: 1 Coat
Primer	: Nippon Paint Zinc Phosphate Primer FD	: 1 Coat
Intermediate	: Nippon Paint Micaceous Iron Oxide	: 1 Coat
Top Coat	: Nippon Paint Micaceous Iron Oxide	: 1 Coat
Primer	: Nippon Paint Zinc Phosphate Primer FD	: 1 Coat
Intermediate	: Nippon Paint Aluminium Paint	: 1 Coat
Top Coat	: Nippon Paint Aluminium Paint	: 1 Coat

Surface Preparation

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 : Nippon Paint General Purpose Thinner. Clean up equipment with thinner immediately after use.

Tests

1. **ISO 15184** on Pencil Hardness
2. **ASTM D3359** on Adhesion of Paint by Tape Test
3. **ISO 3251** on Non-Volatile Matter
4. **ISO 9227** on Salt Spray Test

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 adequate ventilation should be provided.

Safety Precautions

- In the wet state, this product is highly inflammable. In case of fire, blanket flames with foam, carbon dioxide or dry chemicals.
- Keep away from sources of ignition. No smoking.
- Keep container tightly closed and keep out of reach from children.
- Do not breathe vapour/spray. Applying paint to large surface areas under closed environment should use air supplied breathing equipment. For small areas or short periods, a suitable cartridge mask should be worn.

Inhalation	:	Remove to fresh air, loosen collar and keep patient rested.
Ingestion	:	In case of accidental ingestion. DO NOT INDUCE VOMITING. Seek immediate medical attention.
- Avoid contact with skin and eyes. Wear suitable protective coating such as overalls, goggles, dust masks and gloves. Use a barrier cream.

Eyes	:	In the event of accidental splashes, flush eyes with water immediately and obtain medical advice.
Skin	:	Wash skin thoroughly with soap and water or approved industrial cleaner. DO NOT USE solvent or thinners.
- Care must be taken when transporting paint. Keep container in a secure upright position.
- Do not empty into drains or watercourses. Dispose of any paint waste in accordance with the appropriate Environmental Quality Regulations.

Note : A Chemical Safety Data Sheet (CSDS) is available upon request.

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.