

**NIPPON PAINT EA4 FINISH (EP)**
*Updated Aug'22*

**NIPPON PAINT EA4 FINISH (EP)** is a two-pack polyamide cured epoxy finish for use on primed steel surface where chemical, oil and abrasion resistant coating is required. It is recommended for non-immersion services. If it is to be applied over steel, it has to be used in combination with the appropriate primers as recommended below.

**Product Features:**

- Good resistance to abrasion and mechanical damage
- Excellent on correctly prepared and primed surfaces
- Dry service temperature up to 100°C

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent based	Interior	High Gloss As per colour card	Properly primed steel	5 L (4L Base and 1L Hardener) 20 L (16L Base and 4L Hardener)

**Composition**

Pigment	: Organic and inorganic pigments
Binder	: Epoxy and polyamide
Thinner	: Combination of aromatic, ketone and alcohol

**Technical Data**

Drying Time (25-30°C)	: Touch Dry : 2 - 3 hours (Dependent on temperature and humidity) : Hard Dry : 16 hours (Dependent on temperature and humidity)
Overcoating Time (25-30°C)	: Minimum 16 hours (Dependent on temperature and humidity)
Curing Time (25-30°C)	: 6 - 7 days (Dependent on temperature and humidity).
Typical Thickness	: 50 - 80 µm dry film per coat 100 - 160 µm wet film per coat
No. of Coats	: 1 - 3 coats
Theoretical Coverage	: 10.2 m <sup>2</sup> per litre per coat (for dry film thickness of 50 microns) : 6.4 m <sup>2</sup> per litre per coat (for dry film thickness of 80 microns)
Practical Coverage (40% Loss Factor, as a guideline)	: 6.1 m <sup>2</sup> /litre (for dry film thickness of 50 microns) : 3.8 m <sup>2</sup> /litre (for dry film thickness of 80 microns)
Volume Solid	: 51 ± 3% by volume
Specific Gravity	: 1.00 – 1.30 (for mixture of base and hardener)
Mixing Ratio	: 4 parts by volume of Base to 1 part by volume of Hardener. <i>(Stir the content of the Base component, continue stirring and gradually add the total content of the Hardener component, continue stirring until a homogeneous mix is obtained.)</i>
Pot Life (25-30°C)	: 6 - 8 hours after mixing
Shelf Life	: Up to 24 months in tight sealed container <b>(Subjected to reinspection after exceeding shelf-life period)</b>

**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.

When airless spray is being used, excessive high tip spraying pressure should be avoided. The minimum pressure at the pump conducive with good atomisation should be used. Brush and roller are recommended for small areas and touch-up only. Good quality brushes and mohair/ short nap rollers should be used with full strokes. Avoid re-brushing. Additional coats may be required to achieve minimum specified film thickness.

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.

Drying time will become remarkably delayed under low temperature. Overcoating the previous coat of Nippon Paint EA-4 Finish (EP) should be done within 6 ~ 7 days but preferably as soon as possible after it has been allowed 16 hours drying or else, it is desirable to roughen it by dry sanding with sandpaper before it is overcoated. This is to ensure proper intercoat adhesion. Exposure of the paint film to water, chemical and abrasion should be avoided as far as possible before full cure of the coating. When chalking occurs, chalks should be removed by water washing. Allow the surface to dry thoroughly prior to overcoating.

Thinner	: SA-65 Thinner
Brush / Roller	: If necessary, add up to 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 <sup>2</sup>
	: Tip size : 0.015" – 0.017"
	: Spray angle : 60° -70°
	: Dilution : Up to 5% thinner by volume

### Recommended Coating System

<b>Steel</b>		
Primer	: Nippon Paint 8048 Zinc Phosphate Primer QD	: 1 Coat
Intermediate	: Nippon Paint 8048	: 1 Coat
Top Coat	: Nippon Paint EA4 Finish (EP)	: 1 Coat
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### Surface Preparation

#### STEEL

Avoid painting when the environment relative humidity exceeds 85%, or when the surface to be painted is less than 3°C above the dew point. For maximum performance, this product should be applied to a metal surface that has been blast cleaned to **Sa 2.5 ISO 8501-1:2007 or SSPC – SP 10** and prepared in accordance with the recommendations provided within the product data sheet of the primer being used. This coating is usually applied over a suitable primer, undercoat or build-up coat. This underlying system should be sound and undamaged. The surface to be overcoated must be dry and free from surface contaminants. All wax, oil and grease should be removed by solvent cleaning in accordance with the guidelines complying to **SSPC – SP 1**. Soluble salts, dirt and dust must be removed prior to applying the coating. Dry brushing should be sufficient. A freshwater wash must follow to remove all soluble salts. Always ensure maximum overcoating time for the primer/build coat has not been exceeded prior to application.

### Cleaning

Cleaning Solvent : SA-65 Thinner. Clean up equipment with thinner immediately after use.

### 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.
- 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 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.