



Sơn Nippon
Sơn Đầu Cứng Đẹp

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PRODUCT DATA SHEET

NIPPON EP4

Product Description:

Nippon Paint EP4 is a two-pack, high gloss Polyamide Epoxy Finish with improvement on firm flexibility for steel, concrete, plaster, brick and most types of building boards and blocks, etc. where chemical, oil and abrasion resistance coating is required. EP4 is recommended for non-immersion services. Non-skid quality available upon request.

Physical Characteristics of Paint:

Colour	: Wide range of colours as per colour card. Special colours on request. Each coat can be supplied in different shade.
Finish	: High Gloss
Specific Gravity	: 1.23 ± 0.05 ⁽¹⁾ (for Mixture of Base & Hardener)
Solid Content	: 52 ± 2 by volume ⁽¹⁾ (for Mixture of Base & Hardener)
Abrasion	: Good resistance to abrasion and mechanical damage
Adhesion	: Excellent on correctly prepared surfaces
Chemical Resistance	: The fully cured coating offers outstanding resistance to aqueous solutions and a wide range of industrial chemicals, mild acids, crude oils, Jet fuel, fats, cutting oils, fruit juices, etc.
Weathering	: Not recommended for direct exposure to sunlight. It is always used as a base coat in conjunction with a Nippon Polyurethane finish coat.
Temperature	: Dry service temperature range up to 100°C

Remark: (1) Base on White colour

Recommendation for Use:

Surface Preparation

Mild Steel Surfaces

Abrasive blasted in accordance with Swedish Standard Sa 2.5, preferably Sa 3.0 (SIS 05 59 00 / ISO 8501-1). Shop-prime immediately with a suitable shop-primer e.g. NIPPON EA9 RED OXIDE PRIMER, NIPPON ZINC PHOSPHATE BLAST PRIMER or NIPPON ZINC RICH PRIMER HS after abrasive blasting follows up with a compatible barrier coat or intermediate coat.

NIPPON PAINT (VIETNAM) CO., LTD

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Galvanised Steel Surface

New galvanised surface requires to be degreased in accordance to SSPC-SP1. For old galvanised surface, it must be abraded to remove corrosion deposits. Shop-prime with a suitable etching primer e.g. NIPPON VINILEX 120 ACTIVE PRIMER. All surfaces must be dry and free from oil and grease prior to painting.

Masonry and Cement Concrete Surface

Moisture Content must be below 6% checked by Sovereign Moisture Meter. Unstable matter such as powder, old paint film, dirt and loose plaster should be removed by high pressure water jet washing or mechanical means such as power brush or scraper whichever is suitable. High pressure water jet may be used for external wall. Contaminants, dust and foreign matter should be removed by cleaning with damp cloth. Oil or grease should be removed by solvent cleaning or mild detergent. Allow surface to dry again. After that prime with 1 coat of 20 to 40% thinned NIPPON EA9 WHITE PRIMER as sealer/priming coat.

New cement floor

Moisture Content must be below 6% checked by Sovereign Moisture Meter. Foreign and unstable matter such as powder, dirt, dust, contaminants and loose plaster should be removed by low pressure water jet washing. Oil or grease should be removed by solvent cleaning or mild detergent. Allow surface to dry again. After that apply with 1 coat of 40 to 50% thinned Nippon NIPPON EP4 CLEAR as a sealer coat and after that prime with 1 coat of 10 to 20% thinned NIPPON EA9 WHITE PRIMER as a primer coat.

Recommended No. of Coats	: 1 - 2 coats
Recommended Film Thickness per coat	: 40 microns for dry film 76 microns for wet film
Theoretical Coverage at Recommended Film Thickness	: 13.1 m ² / liter (for dry film thickness of 40 microns)
	Theoretical Coverage = $\frac{\text{Volume Solid (\%)} \times 10}{\text{Dry Film Thickness (\mu)}} \text{ (m}^2/\text{liter)}$
Practical Coverage (20% Loss Factor)	: 10.5 m ² / liter (for dry film thickness of 40 microns)

Note : This theoretical coverage rate has been calculated from the volume solid 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.

Application Data:

Application Methods	: Brush, roller, compressed air spray and airless spray									
Guiding Data for Spray	: <table><thead><tr><th></th><th><u>Air</u></th><th><u>Airless</u></th></tr></thead><tbody><tr><td>Delivery Pressure (kg/cm²)</td><td>3 - 4</td><td>140 - 170</td></tr><tr><td>Tip size at 60° angle</td><td>1.3 mm</td><td>0.015" - 0.017"</td></tr></tbody></table>		<u>Air</u>	<u>Airless</u>	Delivery Pressure (kg/cm ²)	3 - 4	140 - 170	Tip size at 60° angle	1.3 mm	0.015" - 0.017"
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	Airless Spray	5% maximum
Mixing Ratio	:	4 parts by volume of NIPPON EP4 (BASE) to 1 part by volume of NIPPON EP4 HARDENER. 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.
Pot Life at 25°C to 30°C	:	4 - 6 hours after mixing, depending on prevailing temperature

Thinner	:	NIPPON SA 65 THINNER
Cleaning Solvent	:	NIPPON SA 65 THINNER
Note: 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.		

<u>Drying Time at 25°C to 30°C:</u>		
Dry to touch	:	1 - 2 hours
Dry to handle	:	16 hours
Dry to overcoat	:	Minimum 16 hours
Curing time at 25°C to 30°C	:	6 - 7 days
Note: Drying time will become remarkable under low temperature. Overcoating the previous coat of NIPPON EP4 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.		

Standard Packing	:	5 Liters (4 Liters BASE & 1 Liter HARDENER) 20 Liters (16 Liters BASE & 4 Liters HARDENER)
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<u>Environmental Conditions during Application:</u>	
1.	Do not apply when the relative humidity exceeds 85%. The temperature of the substrate to be painted must be 3°C higher than the dew point.
2.	Do not apply at temperature below 7°C. If not, drying and overcoating time will be considerably extended.
3.	During application of the paint, naked flame, welding operations and smoking should not be allowed and good ventilation is necessary.

<u>Safety, Health and Environmental Information:</u>	
1.	Flammable Liquid. Do not expose to heat, sparks or open flame.
2.	Skin Contact: May cause moderate skin irritation. Avoid prolong contact with skin. Use solvent resistant glove.

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To remove splashes of paint from skin, use soap and water.

3. Inhalation: Respiratory irritation. Only used in well ventilated areas. Do not breathe vapor or spray paint. Respirator with organic vapor cartridges recommended.
4. Eye Contact: Cause severe eye irritation and blurred vision. Safety glasses / goggles with side shields recommended. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
5. Ingestion: Harmful if swallowed. Keep away from drinks, food and out of reach of children. If swallowed, seek medical advice immediately and show the container or label.
6. In the event of an accident, contain and collect spillage using sand or earth or absorbent. Do not empty into drain or water courses.
7. Wastes and empty containers should be treated and disposed of in accordance with national and local regulations. Empty containers and packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor.

NOTE: The information given applies to the product and its performance under specific test conditions. Due to the varied circumstances beyond our control under which the product may be applied, for specific application, please contact Nippon Paint Sales & Marketing Dept. We reserve the right to modify our product data sheet without further notice.

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