

NIPPON PAINT AROCOAT
Updated Aug'22

NIPPON PAINT AROCOAT is a two pack, high build coal tar epoxy coating designed for use as a high build protective system on both steel and concrete surfaces. It can be applied up to 200 microns or even thicker in one coat; and is intended for immersion and non-immersion services which require excellent protection against fresh and salt water, abrasion and splashes of corrosive chemicals. For aggressive environment including marine installation, steel piles, pipeline, ballast tank, sewage treatment plant, refineries, chemical plants, etc.

Product Features:

- Resistant against salt & fresh water, wide range of industrial chemicals and effluents
- Available in Black and Brown Colour

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent	Interior	Semi-Gloss	Steel and Concrete	5 L (3.9L Base and 1.1L Hardener) 20 L (15.6L Base and 4.4L Hardener)

Composition

Pigment	: Extender
Binder	: Epoxy, Polyamide & Coal tar
Thinner	: Combination of aromatic, ketone and alcohol

Technical Data

Drying Time (25-30°C)	: Touch Dry	: Approximately 1 - 2 hours
	: Hard Dry	: 16 - 24 hours
Overcoating Time (25-30°C)	: Minimum 16 hours	
Curing Time (25-30°C)	: 7 days (Dependent on temperature and humidity).	
Typical Thickness	: 80 - 200 µm dry film per coat	
	: 100 - 250 µm wet film per coat	
No. of Coats	: 1 - 3 coats	
Theoretical Coverage	: 10.0 m ² /litre (for dry film thickness of 80 microns)	
	: 4.00 m ² /litre (for dry film thickness of 200 microns)	
Practical Coverage (40% Loss Factor, as a guideline)	: 6.00 m ² /litre (for dry film thickness of 80 microns)	
	: 2.40 m ² /litre (for dry film thickness of 200 microns)	
Volume Solid	: 80 ± 3% by volume	
Specific Gravity	: 1.20 – 1.35 (for mixture of Base and Hardener)	
Mixing Ratio	: 78 parts by volume of Base to 22 parts by volume of Hardener.	
	<i>(Stir the content of the Base component, continue stirring and gradually add the total contents of the Hardener component, continue stirring until a homogeneous mix is obtained.)</i>	
Pot Life (25-30C)	: 6 - 8 hours after mixing	
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.

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 rebrushing. Additional coats may be required to achieve minimum specified film thickness.

For thinning, substitute thinners other than those approved or supplied by Nippon Paint. 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 Arocoat 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-18 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 ²
	: Tip size : 0.015” – 0.017”
	: Spray angle : 60°- 70°
	: Dilution : Up to 5% thinner by volume

Recommended Coating System

Steel and Concrete**

Primer	: Nippon Paint Arocoat	: 1 Coat
Intermediate	: Nippon Paint Arocoat	: 1 Coat
Top Coat	: Nippon Paint Arocoat	: 1 Coat

**Do not overcoat Nippon Paint Arocoat with any oil-based paint as bleeding may occur.*

**Do not apply anything other than Nippon Paint Arocoat on top of Nippon Paint Arocoat*

Surface Preparation

STEEL

For optimum performance, abrasive blasting in accordance to **Sa 1 ISO 8501-1:2007** or **Sa 2 ISO 8501-1:2007** is desirable, especially for underground and immersion services. If blasting is not possible, mechanical cleaning to **SSPC-SP3** or **St 3 ISO 8501- 1:2007** is essential. The surface must be dry and free from any abrasive residues, dirt, oil and grease and other contaminants prior to painting.

CONCRETE

For optimum performance, light abrasive blasting is best to remove all previous coatings and chalk. If blasting is not possible, new and uncoated concrete surface must be etched with approximately 5% phosphoric acid solution. It should then be rinsed thoroughly with clean water and allow drying off completely prior to painting.

Cleaning

Cleaning Solvent : SA-18 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.
- 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.