

NIPPON PAINT CORSEA UNDERWATER EPOXY
Updated Apr'24

NIPPON PAINT CORSEA UNDERWATER EPOXY is a solvent free, two-pack epoxy coating. It is able to provide corrosion resistance and good abrasion resistance under extreme services condition. It is capable to be applied and cured underwater, forming a protective barrier. Besides that, it able to provide good adhesion on wet blasted surfaces.

Product Features:

- Zero VOC – solvent free product
- Underwater curing – capable of application and curing underwater
- High durable against salt and water
- Suitable for cold sweating steel surfaces.
- Good chemical resistance against wide range of chemicals
- Able to cure at low temperature
- Good adhesion on dry and wet surfaces

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent based	Exterior	Low Gloss	Steel and Concrete	5KG (3.8KG Base and 1.2KG Hardener)

Composition

Pigment	: Iron oxide pigment and extender.
Binder	: Epoxy and cycloaliphatic amine resin

Technical Data

Drying Time (25-30°C)	: Touch Dry : 4 hours (Dependent on temperature and humidity) : Hard Dry : 6 hours (Dependent on temperature and humidity)
Recoating Time (25-30°C)	: Minimum 6 hours (Dependent on temperature and humidity)
Curing Time (25-30°C)	: 7 days (Dependent on temperature and humidity)
Typical Thickness	: 180 ~ 220 microns dry film per coat 180 ~ 220 microns wet film per coat
No. of Coats	: 2 – 3 coats
Theoretical Coverage	: 2.86 m ² /KG (for dry film thickness of 180 microns) 2.34 m ² /KG (for dry film thickness of 220 microns)
Practical Coverage (40% Loss Factor, as a guideline)	: 1.72 m ² /KG (for dry film thickness of 180 microns) 1.40 m ² /KG (for dry film thickness of 220 microns)
Volume Solid	: 100% by volume
Specific Gravity	: 1.85 – 2.05 (for mixture of Base and Hardener)
Mixing Ratio	: 3.8 parts by weight of Base to 1.2 part by weight 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)	: 35 minutes 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, compressed air spray generally lead to lower film thickness, so more applications may be required to obtain the recommended thickness per coat. For brush and roller 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. 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.

Thinner	: SA-65 Thinner * Thinning is not recommended for application underwater.
Brush/ Roller	: If necessary, add up to 10% to 15% thinner by volume.
Compressed Air Spray	: If necessary, add about 10% to 15% thinner by volume.
Airless Spray	: Delivery pressure : 180 – 200 kg/cm ² : Tip size : 0.017" – 0.025" : Spray angle : 60° - 70° : Dilution : Up to 5% thinner by volume

Recommended Coating System

Iron, Steel and Concrete

Primer	: Nippon Paint CORSEA Underwater Epoxy	: 1 coat
Intermediate	: Nippon Paint CORSEA Underwater Epoxy	: 1 coat
Top Coat	: Nippon Paint CORSEA Underwater Epoxy	: 1 coat

Surface Preparation

For optimum performance, abrasive blasting in accordance to **SSPC-SP10 or Sa 2½ ISO 8501-1:2007** is desirable. Average of surface profile 50 - 100 microns is acceptable. The surface to be coated must be clean and dry. Zinc salts can be removed by fresh water wash and scrubbing. Dry brushing should be sufficient to remove dirt. Where abrasive blasting is not possible, mechanical cleaning to **St 3 ISO 8501-1:2007** standard is acceptable.

Cleaning

Cleaning Solvent : SA-65 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.

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.