

HIGH PERFORMANCE PRIMER
Updated Jan'25


High Performance Primer is a two-pack amine-adduct cured epoxy primer specially developed to achieve long-term protection for many types of surfaces such as concrete masonry, concrete floors, aluminium, galvanizing, aluminium/zinc alloy coated steel and glazed tiles, clay tiles and glazed brickwork. The product forms a strong cross-link to act as a barrier against moisture from the substrate, giving excellent alkaline and efflorescence resistance performance. It also promotes the adhesion of multiples surface with the top finishing coat. Aside from its protection function it works well in preventing plasticiser migration from sealant to paint, eliminating the paint staining issue.

Product Features:

- Excellent alkaline and efflorescence resistance on the masonry surface
- Excellent adhesion on Galvanizing, aluminium and steel surface
- Prevent plasticiser migration from sealant to paint.

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Solvent-based	Interior /Exterior	Matt	Masonry, concrete, aluminium, galvanizing, aluminium/zinc alloy coated steel, and clay, glazed tiles substrate	5 & 20 litres (4.5L / 18L Base and 0.5L / 2L Hardener)

Composition

Pigment	: Titanium dioxide and mineral extenders
Binder	: Epoxy Resin
Thinner	: Combination of ester, ketone and hydrocarbon

Technical Data

Drying Time	: Hard Dry : 2 - 3 hours (Dependent on temperature and humidity)
Recoating Time	: Minimum 8 hours (Dependent on temperature and humidity)
Pot Life at 25°C to 30°C	: 4-6 hours after mixing
Mixing Ratio	: 9 parts by volume of High Performance Primer (Base) to 1 part by volume of High Performance Primer (Hardener) . 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.
Dry Film Thickness	: Around 50-60 µm per coat (based on substrate condition)
No. of Coats	: 1 coat (<i>For tie-coat application at the construction joint, it needs to apply on the sealant surface and 25mm on both adjacent surfaces</i>)
Theoretical Coverage	: 8 - 10 m ² per litre per coat (Actual coverage is dependent on substrate condition, application method, application condition and finishing appearance)
Practical Coverage	: 5 – 6 m ² per litre per coat (on bare concrete wall, apply by roller)
Volume Solid	: ~ 55%
Shelf Life	: Up to 24 months in tightly sealed container

Application Method

Brush / Roller	: Ready for use after thorough stirring. If necessary, dilute with maximum 5% of SA 65 Thinner.
Conventional Air Spray	: Dilute with 10% - 15% SA 65 Thinner.
Airless Spray	: Ready for use after thorough stirring. If necessary, dilute with maximum 5% of SA 65 Thinner.

Recommended Coating System

Sealer / Primer	: High Performance Primer	: 1 Coat
Top Coat	: Nippon Paint Exterior Products / PU Recoatable Finish	: 2 Coats
For Concrete Floors		
Primer	: High Performance Primer	: 1 coat
Top Coat	: Multi-Purpose Floor Coating / FloorSports 1K Epoxy Hybrid	: 2 coats

For Sealant Joint

Sealant	: V-tech MS Sealant	
Tie-coat	: High Performance Primer	: 1 coat
Sealer/Primer	: Nippon Paint Interior / Exterior Sealer	: 1 Coat
Top coat	: Nippon Paint Interior / Exterior Products	: 2 coats

Surface Preparation
Masonry Wall

Remove all loose, defective paint or powdery residues, loose chalk, dust and foreign matter. Repair cracks, uneven surfaces with suitable fillers. Smoothen the filler areas with sand paper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 30% measured by protimeter and alkalinity of the walls to be below pH9.) However, bulging and blistering may occur if high moisture ($\geq 30\%$) continues to be presence on substrate for long period of time after paint is coated.

Concrete Floors

Surfaces should be clean, dry and free from oil, grease and contaminants before painting. For previously painted surfaces, remove all unstable paint film, loose chalk, dust and foreign matter. Repair any surface defects, clean off and dry. Avoid painting on the substrate with exceed 4% moisture content. 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.

Glazed Tile/Clay Tile

Surfaces must be free from contamination and loose materials; oil and grease should be removed by detergent washing. Allow all surfaces to dry completely prior to painting

Aluminium/Galvanizing/Aluminium/Zinc alloy coated steel

For galvanised surfaces and light alloys, thorough solvent degreasing to SSPC-SP1 is necessary. For steel, abrasive blast Sa 2½ ISO 8501-1:2007 is required. All surfaces must be dry and free from contaminants such as dirt, wax, grease, oil, white zinc salts etc. before application of the paint.

Cleaning

Clean up equipment with SA 65 thinner immediately after use.

Safety Precautions

- In the wet state, this product is highly inflammable. Protect from extremes of temperature & store in a cool place. 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 Safety Data Sheet (SDS) is available upon request.

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.

Note

* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{\text{Volume Solid \%} \times 10}{\text{Dry Film Thickness}} \right] = \text{m}^2/\text{lit}/\text{coat}$$

and does not consider LOSS FACTORS.

Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

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.