

NIPPOBOND (formerly known as Nippon Latex)

Updated Sept'22
DESCRIPTION

NippoBOND is a single component, multi-uses, concentrated synthetic Styrene Co-polymer emulsion for addition to cement to use as bonding agent between old and new concrete. It also acts as cement mortar strengthening additive. It is suitable for enhance bonding as well as strength of the cementitious mortar. It is also added to prevent shrinkage cracks. It used as multi-purpose adhesive, surface sealer, primer and bonding agent, admixture for mortar.

USES

NippoBOND is suitable for applications such as:

- Cementitious bonding slurry for old and new concrete/mortar
- Thin layer patching mortars
- Floor screeds
- Concrete repair mortars
- Modified angle fillet

ADVANTAGES

- Enhance adhesion
- Reduce shrinkage
- Excellent water resistance
- Increase abrasion resistance
- Improve chemical resistance
- Non-corrosive
- Ready for use

Specification Clauses:
As Bonding Agent

The bonding agent shall be **NippoBOND**, a styrene co-polymer based emulsified solution containing a minimum of 45% solids and compatible with cementitious materials. The bonding agent shall provide adequate bond strength when directly applied on concrete and also mixed with neat cement.

As Mortar Modifier

The mortar modifier shall be **NippoBOND**, a styrene co-polymer-based cement modifier which is compatible with all common hydraulic cements, used together with cement and sand to provide good bond with concrete, masonry and to improve the flexural strength, tensile strength properties of the mixed mortar when added in the specified quantity in the design mix.

Product Type	Product	Pack Size	Finishing	Substrate
Bonding Agent, Cement Additive	NippoBOND	20L/pail	Milky White Liquid	Concrete, masonry

Typical Technical Data

Form	: Liquid
Color	: Milky white
Total Chloride Ion Content	: NIL
Density, kg/L	: 1.00 ± 0.02
Solid Content, %	: > 45
Bond Strength, MPa (ASTM C1059)	: > 2.8
Tg	: ≥ 14°C
Consumption, kg per m ²	: 0.2-0.3 (theoretical), actual consumption depends on substrate porosity, roughness, and absorption.
Shelf Life	: Up to 12 months from the date of production, store properly in original tight-sealed undamaged container in dry cool place. Protect from direct sunlight

Application Method**Surface Preparation:**

Surfaces to which **NippoBOND** is to be applied should be clean, sound and free of deleterious substances. Remove all laitance, oil, grease, mould oil or curing compound from concrete surfaces using wire brush, scabblor or other equipment as appropriate. Ensure that reinforcing steel is clean and free from grease or oil; remove scale and rust. When repairing spalled or damaged concrete, ensure that the concrete has been cut back to sound material.

Bonding new concrete to old:

1. Ensure the substrate is stable, sound thoroughly clean and free from oil, grease and any loosely adhering material.
2. The substrate should be thoroughly dampened with water with any excess water being brushed off.
3. Apply a sealing coat of **NippoBOND** diluted with 4 parts of clean water and allow to dry.
4. Apply a bonding coat of **NippoBOND** as neat or diluted with an equal volume of water and lay the new concrete while this coat is still tacky.
5. The bond coat becomes tacky under hot sun is about 2-5 minutes and best results are achieved if the new casting concrete or mortar is applied within the next 5-10 minutes
6. To achieve better result, prepare a **NippoBOND** slurry coat comprise of 1 part of **NippoBOND** added with 1.5 to 2 parts of cement, mixed into a lump free and creamy consistency. Using a stiff brush to apply the bonding slurry well into the damp substrate surface, ensuring that no pinholes are visible. Do not apply bonding slurry at a thickness in excess of 2mm. The new casting concrete is applied within 5-10 minutes of application of slurry bond coat under wet-wet application

As a bonding agent for cement screeds and renderings, plaster, etc:

1. The substrate must be sound and solid
2. Remove all flaking and cracking paint, plaster etc. from the substrate.
3. The substrate must be stable and thoroughly clean, and free from oil and grease.
4. Seal the surface using 1 part **NippoBOND** to 4 parts of water.
5. Allow to dry, then apply a bonding coat of 1 part **NippoBOND** diluted with 2 parts water (1:1 on low porosity surface).
6. Screed, plaster or render on the tacky bonding coat using normal techniques.
7. Cure cementitious screeds and renders with **NIPPON PAINT CURE P** properly.
8. On totally non-absorbent surfaces such as polished granite, paintwork etc., the sealer coat may be omitted and the bonding coat should be 1 part of water to 2 parts **NippoBOND**.

Limitation:

1. **NippoBOND** may exhibit less overlay time at higher temperature.
2. In such cases as overlay mortar shall not be applied when **NippoBOND** is totally dry.
3. **NippoBOND** when used as bonding agent cannot act as a barrier coat against ingress of chloride ions from substrate.
4. Do not apply **NippoBOND** onto ponding water area.

Environmental Conditions During Application

- Apply temperature: 15-35°C. Do not apply when the surface to be coated is less than 3°C above the dew point.
- The humidity for application is 30-80%.

Cleaning

Clean up equipment or tools with water immediately after use.

Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- When applying, 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.
- Dispose off any waste in accordance with the appropriate Environment Quality Regulations

Note

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.