

# ECMABOND 512

## Epoxy Resin Based Concrete Bonding Agent

### Description

ECMABOND 512 is epoxy resin based, solvent free, two component bonding adhesives. ECMABOND 512 is designed as a thixotropic adhesive for bonding of structural concrete new to old concrete and bonding agent for bricks and steel components because it gives excellent bonding properties to freshly mixed concrete/mortars, glazed bricks, tiles, etc.

### Areas of application

For bonding new cementitious materials to existing cementitious substrates. To be used on horizontal and vertical surfaces where mortar or concrete can be supported with formwork. It is ideal for extensions and repairs to structural concrete in buildings, bridges, tunnels, roads or floor toppings, etc.

### Advantages

- Bond strength exceeds the tensile strength of concrete hence no failure of concrete due to high degree of movements.
- Can be applied on to dry or damp substrates. Excellent bond strength to the concrete and most building materials
- Excellent water resistance and sealing property prevents leakages.
- Acts as the barrier coat to the migration of chloride ions from the host concrete
- Provides permanent bonding with excellent mechanical properties
- Excellent chemical resistance
- Non-toxic

### Technical Specifications

Appearance	Pack A- Off white, Pack B- Black
Physical state	Pack A & B - Paste
Specific gravity @ 27 °C	1.35 ±0.1
Mixing ratio	2:1
Solid Content %	>98
Application Temperature °C	5- 40
Pot life @ 27°C	>40 Minutes
Over lay time	6 Hours
Full cure	7 Days
Compressive strength @ 7 days	65 N/mm <sup>2</sup>
Shear strength @ 7 days	10N/mm <sup>2</sup>



## **Surface Preparation**

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All surfaces to be treated must be firm, dust free and clean. All laitance should be removed by cleaning agent and wire-brushing. In some cases, the existing concrete must be chipped to a sound substrate. Where surfaces are contaminated with oil or grease, this should be removed by using a strong industrial detergent or organic degreaser. Surface should be washed thoroughly with water and dried before the application of ECMABOND 512.

## **Mixing**

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All packs are pre-weighed and ready for onsite mixing. A suitable power-driven mixer/stirrer is recommended for uniform mixing of ECMABOND 512. Stir the base and hardener separately. Add hardener into the base and stir well till a uniform color is achieved.

## **Application**

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Apply a thin layer of mixed material with brush or squeeze to the existing surface, working well into the substrate. Place fresh concrete/mortar while it is still tacky (3-6 hours). A second coat of ECMABOND 512 may be applied after the first thin layer of the applied ECMABOND 512 passes its tacky stage, prior to placing the freshly mixed concrete or mortar.

## **Packaging**

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ECMABOND 512 available in 3 Kg Pack

## **Shelf Life**

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ECMABOND 512 has shelf life of 12 months, when stored in unopened containers at temperatures between 5-30°C

## **Coverage**

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Approximately 2- 3 m<sup>2</sup>/ Kg depending on substrate porosity.

## **Storage & Handling**

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Material should be stored in Cool and Dry shade. Also protect it from direct sunlight. Please avoid stacking of corrugated box and handle carefully during transport.

## **Safety Precautions**

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Wear all PPE's at the of Application like Safety boot, Safety Goggle, Hand Gloves, Mask and avoided with contact of Skin and Eyes. Any direct skin contamination with the hardeners should be washed off immediately with soap and water.

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