

**CX ARBOND**

Acrylic emulsion cement modifier and water based concrete

Description :

- **CHEMAX ARBOND** is a modified acrylic emulsion specially designed for use as a bonding aid and gauging liquid for cementitious systems.
- It is resistant to hydrolysis and can therefore be used for external applications. **CHEMAX ARBOND** is the recommended primer for the CHEMAX PRIMER cementitious repair system.

Uses:

- Recommended primer for CHEMAX cementitious repair system. For improving and bonding floor toppings, renders and mortars; repair of worn, damaged or spalled concrete; polymer modified floor screeds.

Advantages :

- Simply brush onto concrete as a primer. Single component, gauged as required.
- High adhesion - Provides excellent bond to concrete, masonry, stone work plaster and block board.
- Increased strength - Improves tensile and flexural
- Properties of mortar. Allows thin section applications.
- Versatile - Compatible with all common hydraulic cements
- Economical - Economical to use

Properties:**Mechanical Properties:**

- Typical improvements in mechanical properties of a 3 : 1 sand/cement mortar using CHEMAX ARBOND.

Mechanical properties	Curing condition	Control	CHEMAX ARBOND
Compressive strength(N/mm ²)	Dry	35	40
	Wet	30	30
Tensile strength(N/mm ²)	Dry	4.0	4.5
	Wet	3.0	3.5
Flexural Strength (N/mm ²)	Dry	8	11
	Wet	7	9
Adhesion to concrete Slant shear bond (N/mm ²)	Dry	5	20

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Specification clauses :**1. As a bonding agent:**

- The bonding agent shall be **CHEMAX ARBOND** an acrylic based emulsified solution containing a minimum of 43% 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.

2. As a mortar modifier:

- The mortar modifier shall be **CHEMAX ARBOND**, an acrylic emulsified cement modifier which provides good bond with concrete / masonry and improves the flexural strength, tensile strength properties of the mortar when added in the specified quantities. It shall be compatible with all common hydraulic cements.

Application instructions**1. Surface Preparation:**

- The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All substrates should be cleaned and free of dust, plaster, oil, paint, grease, corrosion deposits, and any other deleterious substances.
- Laitance should be removed by mechanical means. Oil or greasy deposits should be removed by suitable means. All surfaces so treated should be thoroughly washed with clean water.
- Smooth substrates must be mechanically roughened e.g. by scabbling, needle gun or grit/ sand blasting to provide an mechanical key.

2. Concrete repairs:

- Any reinforcing steel in the repair area should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits and then primed with CHEMAX Primer. Remove all surface dust and debris.

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3. Priming:

- Immediately before priming, the concrete substrate should be thoroughly dampened with water and any excess being brushed off.
- Scrub CHEMAX AR into the substrate. Avoid puddling of the emulsion. The repair mortar/topping should be applied whilst the primer is still tacky. However a satisfactory bond can be achieved up to 15 mins. After application at 30°C

4. Typical Mix designs to modify mortars:

OPC 43/53 grade	50 kg
Zone 2 sand	150 kg
CHEMAX ARBOND	8 - 10 liters
Water	Add sufficient water to give required consistency

- **Note:** Trials are recommended to optimize mix designs. General recommendations for repairs Prepare surfaces thoroughly as previously recommended Cut back edges to avoid feather edging, Prime all surfaces including edges, using **CHEMAX ARBOND**.
- All applications shall be wet on wet. For best results CHEMAX ARBOND should be allowed to become tacky. If the bonding agent is allowed to dry for more than 15 minutes at 30°C initial 'grab' to the repair mortar will be reduced.
- Therefore, the use of temporary shuttering is recommended. Water content of the Mortar should be kept to the minimum necessary.
- For consistent results, the use of clean, dry sand is recommended. Where the use of wet sand is unavoidable, the quality of water to be added must be reduced.
- Cure mortars using **CHEMAX ARBOND** to prevent rapid drying out. Protect uncured mortar from frost and rain. Do not retemper mortar after initial set.
- Minimum application temperature for CHEMAX ARBOND is 10°C, but the mortar should not be applied if the temperature is expected to fall. For permanently immersed conditions consult Local CHEMAX office.



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Limitations

1. Asabondingagent:

- **CHEMAX ARBOND** may exhibit less overlay time at higher temperature. In such cases as overlay mortar shall not be applied when **CHEMAX ARBOND** is totally dry.
- **CHEMAX ARBOND** when used as bonding agent cannot act as a barrier coat against ingress of chloride ions from the substrate.

Equipment cleaning: Immediately after use, wash all tools with clean water.

Packaging:

- **CHEMAX ARBOND** is supplied in 1, 5, 20 liter plastic containers.

Coverage:

- Approximately 6 - 8m²/ liter depending on substrate

Shelf life:

- 12 months at 30°C. **CHEMAX ARBOND** should be protected from frost.

Health & Safety instructions:

- **CHEMAX ARBOND** is non toxic. However it should never be ingested and if it comes into contact with eyes, wash immediately with plenty of water and seek medical treatment.
- **CHEMAX ARBOND** is slightly alkaline. Skin contact should be avoided. Gloves and protective clothing should be worn.

Fire:

- **CHEMAX ARBOND** is non flammable.
- Flash point : 48°C