



An acrylic repair and bonding agent.

# DESCRIPTION

Bond-AR is an aqueous emulsion of acrylic copolymers specially formulated for use with cement. Bond-AR modifies the property of cement in mortars and in concrete to make them perform better.

## **PRIMARY USES**

- Corrosion protection of steel.
- Repairs of structural members.
- Repairs of industrial floors.
- Waterproofing of basements and tanks by tanking.
- Repairs to marine structures.

## **ADVANTAGES**



Bond-AR is water resistant and has excellent adhesion to concrete, steel, brick, stones and is compatible with cement.



Bond-AR mortar makes concrete resistant to ingress of salt, mineral oils etc.



Bond-AR modified mortars and concrete show higher compressive, tensile and flexural strengths.



The product is non toxic, hence suitable for use in potable water tanks and food storage tanks.

## PREPARATION

For various applications Bond-AR is used in the form of bonding slurry and as an additive in the modified mortar.

Bonding Slurry: It is obtained by mixing one volume of Bond-AR with one and half volume of cement. This bonding slurry is
applied immediately within 20 minutes of preparation.

Modified Mortar: **Mix design** 

OPC	50 Kg
ZONE II SAND	150 kg
BOND-AR	10 to 15 Litres
WATER	10 to 15 Litres
YIELD	0.112 m3 or 112 Litres

Dosage: 5 to 15 Litres per 50 kg bag of cement depending upon application and severity of problems.

## **DIRECTIONS FOR USE**

- On a cleaned and prepared wet surface apply Bond-AR slurry by brush.
- When the Bond-AR slurry is still green and tacky apply modified mortar and trowel it to form a smooth and even surface.
- Care should be taken to apply modified mortar fast after application of bonding slurry as the bonding slurry has a tendency to dry out fast in hot weather.

# **TYPICAL APPLICATIONS**

#### CORROSION REPAIR OF BEAMS, COLUMNS AND SLABS:

- Remove the cover concrete and cut back to the sound concrete zone. Remove all rust from the reinforcement by mechanical means. Apply one coat of "Rust Remover" by brush on the steel.
- Apply passivator coat to the reinforcement in the ratio of one volume of Bond AR to one volume of cement.
- Next day apply one coat of Bond-AR bonding slurry.
- When the bonding slurry is still tacky apply Bond-AR modified mortar to a thickness of 20 mm.
- Moisture cure for 24 hours and allow it to dry off.

### **REPAIRING INDUSTRIAL FLOOR AND FLOOR DUCT NOSING:**

- Cut back to sound concrete and make the surface wet.
- Apply one coat of Bond-AR bonding slurry. When the bonding coat is still tacky apply Bond-AR modified mortar.
- In case of floor duct nosing carefully build up layers to form the edges.
- Carefully finish it to match with the original surface.
- Moisture cure for 24 hours and allow it to dry off.

## **PROPERTIES**

Physical Form	: Milky White Liquid
Sp. Gravity	: 1.03 gm/cc at 25°c
Solid Content	: 40%±1
Ph	: 9.0±1
Solubility	: Mixes with water
Toxicity	: Non-toxic
Particle Size	: 0.1 Micron

## **PROPERTIES OF HARDENED MORTAR**

Results obtained with hardened mortar after 28 days are as follows :

1	40 to 45 N/mm <sup>2</sup>
1	6 to 8 N/mm <sup>2</sup>
1	9 to 11 N/mm <sup>2</sup>
1	1.8 to 2.2 N/mm <sup>2</sup>
:	1.8 to 2.2 $\ensuremath{\text{N/mm^2}}$
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## PACKING

Bond-AR is available in 500 ml, 1 Litre, 5 Litre, 10 Litre, 20 Litre, 100 Litre and 200 Litre packing.

### SHELF LIFE

Bond-AR can be stored up to 24 months in cool and dry conditions in manufacturer's original packing.

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