

# TM BOND<sup>®</sup> AR

Acrylic Emulsion Based Concrete Bonding Agent and Cement Modifier



TM BOND<sup>®</sup> AR is a modified acrylic emulsion specially designed for use in repair work for bonding mortars, damaged concrete. TM BOND<sup>®</sup> AR is the recommended primer for the Thermax cementitious repair systems. TM BOND<sup>®</sup> AR is a single component acrylic based product used for waterproofing of basement, terraces, roof, toilet, etc.

## Benefits

- **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.
- **Easy Application-** Simply brush onto concrete as a primer. Single component, gauged as required.

## Technical Support

Thermax offers a technical support service to specifiers, and contractors, as well as on-site technical assistance in locations all over the country.

## Properties

Appearance	White Emulsion
Solid Content	47%
Specific Gravity	1.02 gm/cc

Mechanical Properties	Control	TM BOND <sup>®</sup> AR
Compressive Strength (N/mm <sup>2</sup> )	25	30
Flexural Strength (N/mm <sup>2</sup> )	5	6
Pull-off adhesion test (N/mm <sup>2</sup> )	2.5	3.5
Slant Shear Bond Test (N/mm <sup>2</sup> )	7	8
Tensile Strength (N/mm <sup>2</sup> )	3	3.5

## Instructions for use

### Surface Preparation

The objective 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 hazardous

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 scrubbing, needle gun or grit/ sand blasting to provide an mechanical key.

**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 suitable Primer. The dust and debris on the cement surfaces shall be removed.

### Priming

Immediately before priming, the concrete substrate should be thoroughly dampened with water and any excess being brushed off. Scrub TM BOND<sup>®</sup> AR into the substrate. Avoid puddling of the emulsion. The repair mortar/topping should be applied while the primer is still tacky. However a satisfactory bond can be achieved up to 15 minutes after application at 30°C.

### Mix Proportions

As Cement modifier

1ltr TM BOND<sup>®</sup> AR: 5kg cement: 15kg graded Quartz sand

As a Bonding Agent

0.5 part cement: 1 part TM BOND<sup>®</sup> AR

As a Waterproofing Agent

2-5% TM BOND<sup>®</sup> AR shall be mixed to concrete by weight of cement.

### Additional Guidance

Prepare surfaces thoroughly as previously recommended. Cut back edges to avoid feather edging. Prime all surfaces including edges, using TM BOND<sup>®</sup> AR. All applications shall be wet on wet. For best results TM BOND<sup>®</sup> AR 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, use of clean dry sand is recommended. Where the use of wet sand is unavoidable, the quantity of water to be added must be reduced.

# TM BOND<sup>®</sup> AR

Cure mortars using TM BOND<sup>®</sup> AR to prevent rapid drying out. Protect uncured mortar from frost and rain. Do not retemper mortar after initial set. Minimum application temperature for TM BOND<sup>®</sup> AR is 10°C, but the mortar should not be applied if the temperature is expected to fall. For permanently immersed conditions consult Local Thermax office.

## Limitations

### As a bonding agent

TM BOND<sup>®</sup> AR may exhibit less overlay time at higher temperature. In such cases overlay mortar shall not be applied when TM BOND<sup>®</sup> AR is totally dry. TM BOND<sup>®</sup> AR 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 and equipment's with clean water.

## Health and Safety Instruction

TM BOND<sup>®</sup> AR is not toxic. However it should never be ingested and if it comes into contact with eyes, wash immediately with plenty of water and seek medical advice.

TM BOND<sup>®</sup> AR is slightly alkaline. Skin contact should be avoided. Gloves and protective clothing should be worn.

### Fire

TM BOND<sup>®</sup> AR. is non-flammable.

## Storage

TM BOND<sup>®</sup> AR has a shelf life of 6 months when stored at 30°C. TM BOND<sup>®</sup> AR should be protected from frost.

## Packing

TM BOND<sup>®</sup> AR is supplied in 1, 5 and 20 liter plastic containers.

## Coverage

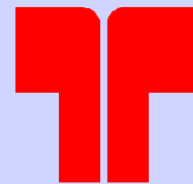
Approximately 6 -8m<sup>2</sup>/litre depending on substrate  
As a Bonding Agent: Approximately 3-4 m<sup>2</sup>/litre depending on substrate.

## Other Segments:

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation
- Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives

**Disclaimer:** The information contained in this document is true and accurate to the best of our knowledge and is based on our experience & test results. It is always the Company's endeavor to give true and accurate information however as it does not have any direct and/or continuing control on the use of the Products, the Company cannot accept any liability, direct or indirect as a consequence of the use of Products. In the event of any doubt upon any critical parameter it is advisable to seek clarification from our technical representative.

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