

# JTBond AR

Acrylic Emulsion Bonding Agent

## DESCRIPTION

**JTBond AR** is a single component white, milky emulsion based upon modified acrylic type resins.

It is formulated for use with **JTPatch** concrete repair mortar system and as a bonding agent for concrete and mortar.

It is resistant to hydrolysis and therefore can be used in external or internal applications.

## FEATURE

- Single component.
- Long open times, designed for ease of use under site condition.
- Excellent bond strength between polymers modified mortars and concrete.
- Cost effective and economical in use
- Can be used as curing membranes for **JTPatch** material
- Water resistant, can be used internally and externally with complete safety.

## USAGE

**JTBond AR** is a bonding agent for **JTPatch** concrete repair system. It may also use as bonding agent for concrete and cement/ sand mortar. It acts as curing compound when sprayed onto freshly applied repair patches.

## PROPERTIES

Bond Strength In	> 15	
Compressive Shear, kN BS 5350:Part C15:1990		
Curing Efficiency Test BS 7542:1992	> 55%	

## INSTRUCTION OF USE

### A. As a bonding agent

#### 1. Preparation

Successful repairs to reinforced concrete depend on correct surface preparation. Mechanically remove all loose or damaged concrete exposing the full circumference of any corroded reinforcing steel. It is recommended that all repair areas should be defined by a 10mm saw cut to avoid "feather edging" of the repair mortars. Finally pre-soak the repair zone with copious amounts of clean water preferably for a minimum of 1 hour prior to application of the **JTBond AR**. Remove excess surface water with a stiff brush.

#### 2. Mixing

**JTBond AR** is supplied ready for use. Do not dilute with water or solvents of any kind. Pour milky liquid into suitable container ready for application onto previously prepared substrate.

#### 3. Application

**JTBond AR** is simply applied by brush ensuring the complete surface is wetted out. Use of a "stippling" action rather than a "painting" action is recommended. The **JTPatch** repair mortars or concrete should be applied immediately.

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## Warning

Do not over apply **JTBond AR** as slippage of the repair mortar may occur in high build applications.

In vertical and overhead applications, whilst laboratory tests show that bond strengths are not greatly affected even after **JTBond AR** is allowed to dry for 24 hours, practical difficulties of maintaining compaction onto the dry primer layer will reduce the build which can be achieved with patching material. It is recommended therefore that should **JTBond AR** dry longer than 8 hours at 20°C, a fresh coat be applied.

### B. As a cement modifier

**JTBond AR** is used as cement modifier to improve the properties of patching mortars and renders.

The recommended mix designs:

OPC : 50 kg

Zone 2 sand : 150 kg

**JTBond AR** : 10 liter

Water : add sufficiently to give required consistency

Typical result of above mixing mortar:

Compressive Strength (N/mm <sup>2</sup> ), BS 6319 Control Treated with <b>JTBond AR</b>	35 40
Tensile Strength (N/mm <sup>2</sup> ), ASTM C109 Control Treated with <b>JTBond AR</b>	4.0 4.5
Flexural Strength (N/mm <sup>2</sup> ), BS 6319 Control Treated with <b>JTBond AR</b>	8.0 11.0
Adhesion to Concrete (N/mm <sup>2</sup> ) - Slant Shear Bond, BS 6319 Control Treated with <b>JTBond SBR</b>	5.0 20.0

## CLEANING

Tools and equipment just can be cleaned with acetone or thinner immediately after use. Cured product only can be removed using mechanical action.

## PACKAGING

20 Liter of pail

200 Liter of drum

4 – 6 m<sup>2</sup> per liter depend on porosity of substrate

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Store in the dry conditions between 5 – 30 °C.

Put away from sources of heat and naked flames in the original, unopened packs.

If stored at high temperatures the shelf life may be reduced.

**SHELF LIFE**

1 Year in an unopened and undamaged packaging.

**IMPORTANT NOTES**

Application condition

1. Relative Humidity (RH) less than 85%.
2. Surface moisture less than 6%.
3. Ambient Temperature 5 – 35 °C.

**SAFETY MEASURES**

Impervious gloves and barrier cream should be used when handling these products.

Eye protection should be worn. In case of contact with eyes, wash thoroughly with plenty of water and seek medical advice if symptoms persist.

If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin clearer followed by plenty of soap and water. Do not use solvent.

Ensure adequate ventilation when using these products.

**DISPOSAL**

Spillage of products should be absorbed on to earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal regulations. For further information, refer to the Product Material Safety Data Sheet.