

# Estobond AR

## Acrylic Emulsion Bonding Agent

### Description

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

It is formulated for use with Estopatch 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.

**Estobond AR** has been tested in accordance to BS 5350 Part C15 : 1990, on Determination of Bond Strength in Compressive Shear, and complied with the specification in this data sheet.

### Uses

**Estobond AR** is a bonding agent for Estopatch 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.

### Advantages

- 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 Estopatch material
- Water resistant, can be used internally and externally with complete safety

### Standards Compliance

- BS 7542 : 1992
- BS 6319
- BS 5350 : Part C15 : 1990

### Physical Properties

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

### Application instructions

#### (A) As a bonding agent

#### 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 **Estobond AR**. Remove excess surface water with a stiff brush.

#### Mixing

**Estobond 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.

#### Application

**Estobond 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 Estopatch repair mortars or concrete should be applied immediately.

## Warning

Do not over apply **Estobond 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 **Estobond 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 Estopatch material. It is recommended therefore that should E **Estobond AR** dry longer than 8 hours at 20°C, a fresh coat be applied.

### (B) As cement modifier

**Estobond 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

**Estobond AR** : 10 litres

Water : add sufficiently to give required consistency

Typical result of above mixing mortar :

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

## Important Note

*Estop products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which may be obtained on request. Whilst Estop endeavors to ensure that any advice, recommendation, specification or information in may give is accurate and correct, it shall not, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it.*

## Packing & Size

<b>Estobond AR</b>	20 liter pail
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## Coverage

<b>Estobond AR</b>	4-6 m <sup>2</sup> per liter depend on porosity of substrate
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## Technical Support

Estop offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

## Storage

Store in dry & covered condition. **Estobond AR** has a shelf life of 12 months in an unopened container.

If stored in extreme heat condition, the shelf life may be reduced.

## Precaution

**Estobond AR** is non-toxic. It is slightly alkaline; therefore, skin contact shall be avoided. Wear gloves and protective clothing.

## Additional Information

Estop manufactures and offers a wide range of complementary products, which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.