

# epidermix 345

## Wet-to-dry epoxy concrete bonding agent

### DESCRIPTION

**epidermix 345** is a solvent-free two-component modified wet-to-dry epoxy resin system which has an extended open time formulation.

### USES

- Structural bonding fresh wet concrete to existing concrete.
- Extended open time feature is useful where re-bar and shuttering have to be installed prior to the new concrete being poured.
- For bridges, pavements, loading bays and factories.
- As a bonding agent to a cementitious substrate for cementitious, epoxy or polyurethane screeds and coatings.
- As a bonding agent for a repair system where the repair is likely to remain wet or under water for an extended period.

### FEATURES & BENEFITS

- Solvent free, can be used in any location.
- Long open time formulation.
- May be used in structural applications.
- Excellent bond to damp or dry surfaces.
- High ultimate tensile strength, exceeds that of concrete.
- High ultimate lap shear strength.
- Can be used internally or externally.

### SURFACE PREPARATION

The existing concrete surfaces must be clean and mechanically sound. They must be free of dust, laitance and any foreign matter as well as cracked and loose stone. Maximum bond strength is only achieved if main aggregate is exposed. This may be done by scabbling, grinding, abrasive blasting or manual chipping. All cracked or loose aggregate must be removed.

TYPICAL PHYSICAL PROPERTIES	
Compressive strength	48 Mpa @ 7 days
Tensile strength	19 Mpa @ 7 days
Flexural strength	34 Mpa @ 7 days
Shear strength	22 Mpa @ 7 days
Adhesive bond to concrete	Will exceed the tensile strength of the concrete
Pot Life @ 20° C	4 hours
Open time @ 20° C	Up to 18 hours. Leave coated substrate 1 hour before placing concrete or screed
Full cure	7 days
Spread rate	5.5 m <sup>2</sup> /kg depending on surface profile
Volume solids	100%
Application temperature range	+5° C to 35° C

When repairing spalls all loose and friable material must be broken away. If damage has exposed reinforcing, this should be undercut and hammered back into position, if so required by the engineer. If exposed reinforcing has rusted it should be cleaned by abrasive blasting and then coated with **durarep ZR** primer. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination and soundness of the substrate should then be assessed by a pull-off test.

### MIXING

**epidermix 345** components should be mixed separately to disperse any settlement. The activator should then be added to the base component and thoroughly mixed for about 3 minutes with a mixing paddle attached to a slow-speed drill (200 r/min).

### COVERAGE

5.5 m<sup>2</sup>/kg depending on surface profile.

### APPLICATION

Brush or spray applied. Refer to notes on open time and application temperatures.

### CLEANING

Remove excess material from tools and then clean with **abe super brush cleaner** immediately after use. Hardened material can only be mechanically removed.

### TEMPERATURE

Do not apply at temperatures below +5° C or above 35° C.

### MODEL SPECIFICATION

**Two-component, epoxy wet-to-dry adhesive for bonding new concrete to old where long open time is required.**

The bonding agent will be **epidermix 345**, a two-component, solvent-free, epoxy resin applied in accordance with the recommendations of **abe Construction Chemicals**.

### PACKAGING

**epidermix 345** is supplied in 2 kg and 5 kg yield kits (a base component and activator component per kit).

Revision 9203



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## Technical data sheet

abe Construction Chemicals (Pty) Ltd. P.O. Box 23053, Isipingo, 4110, South Africa. 7 Wilcox Road, Isipingo, 4110 Tel. (031) 913 5400

## **HANDLING & STORAGE**

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

## **HEALTH & SAFETY**

**epidermix 345** should not come into contact with skin or eyes, or be swallowed. Suitable protective clothing should be worn such as gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used.

In case of contact with skin, remove immediately followed by washing with soap and water. Do not use solvent. In case of splashing into the eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

**epidermix 345** is non flammable.

## **IMPORTANT NOTE**

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **abe Construction Chemicals** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **abe** has no direct or continuous control over where and how **abe** products are applied - accept any liability either directly or indirectly arising from the use of **abe** products, whether or not in accordance with any advice, specification, recommendation, or information given by the company.

## **FURTHER INFORMATION**

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **abe Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.

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