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## SOLVENT-FREE, ABRASION-RESISTANT, HIGH-STRENGTH EPOXY LINING

### DESCRIPTION

**epidermix 505** is a two-component solvent-free, thixotropic, epoxy paste.

### USES

Smoothing concrete irregularities and filling blowholes prior to application of epoxy coatings.

### ADVANTAGES

- Low slump – can be applied to vertical, horizontal and overhead surfaces.
- Paste consistency – can be easily smoothed over irregularities and filling of blow-holes.
- High strength – ensures good bond to concrete.
- Solvent free.
- Adheres to damp surfaces.
- Cures rapidly.
- Compatible with the **dura.®cote** range.

### SURFACE PREPARATION

Cleaning of the concrete surface is best achieved by a light grit blast or high pressure washing to remove all unsound or contaminants such as shutter release oil, curing compounds, dirt, algae or any other deleterious material. Adhesion pulloff tests are suggested when there is any uncertainty about the soundness of the substrate.

Steel surfaces should be grit blasted to a bright finish providing a profile of at least 50 – 80 microns from peak to valley. Separate primers are required for steel and must be applied as soon as possible before flash rusting occurs. See data sheet 'Preparation of Surfaces'

### BONDING/PRIMING

**epidermix 505** does not require a primer.

#### TYPICAL PHYSICAL PROPERTIES

Compressive strength ASTM C109	50 MPa at 7 days
Pot life (at 20 °C)	4 hours
Pot life (at 35 °C)	0.5 hours
Full cure	7 days
Overcoating time (at 20 °C)	7 days
Compacted wet density	Approx. 1 700 kg/m <sup>3</sup>

#### CHEMICAL RESISTANCE

Performance of <b>epidermix 505</b> continually immersed at 20°C		
Citric acid	10%	Very High
Tartaric acid	10%	High
Diesel fuel/petrol	100%	Very High
Sugar solutions	Saturated	Very High
Lactic acid	10%	High
Hydrocarbons	100%	High
Phosphoric acid	50%	High
Hydrochloric acid	25%	Very Good
Sodium Hydroxide	50%	Very Good
Sulphuric acid	50%	Very Good
Nitric acid	25%	Good
Acetic acid	5%	Good

### MIXING

Prior to blending together, thoroughly stir the activator and base components to dispense any settlement that may have occurred during storage. Empty the entire contents of the activator into the base and mix thoroughly for five minutes until a smooth homogenous, uniform colour is achieved.

Always mix full kits, don't attempt to part mix. Mechanical mixing with a slow-speed drill and using a suitable paddle is the preferred method.

### COVERAGE

1m<sup>2</sup>/liter/1mm thickness

### APPLICATION

**epidermix 505** may be applied using a spatula, steel trowel or float.

**epidermix 505** may be applied from feather edge to 3 mm thick in one application. Additional layers may be applied between 10 and 24 hours after the first application depending on ambient temperature.

It is important to apply pressure to the material with the steel float to ensure the pin-holes are filled and that good adhesion to the substrate is achieved. Where necessary, an epoxy mortar like **epidermix 500** may be utilised to repair deeper imperfections. In all cases built up layers must be sanded using 80 grit paper and cleaned prior to any consequent layers.

## CLEANING

Tools may be cleaned with **abe® super brush cleaner** immediately after use before the material has had time to cure. Hardened material can only be cleaned by mechanical means.

## PROTECTION ON COMPLETION

Ensure that all surfaces are protected against rain, dirt or mechanical damage during the curing phase to ensure that a good clean surface is maintained to receive subsequent coatings. **epidermix 505** may be overcoated with duracote in which case the **epidermix 505** coating must have cured for a minimum period of 72 hours. Consult the relevant datasheets for additional information.

## TEMPERATURE AND RELATIVE HUMIDITY

As with all epoxies, **epidermix 505** may not be applied when ambient or substrate temperatures are lower than 5 °C. At ambient temperatures above 35 °C, working time and pot life will be drastically shortened. Do not use if the relative humidity exceeds 85 %.

## MODEL SPECIFICATION

**Two-component epoxy resin fairing coat for filling blowholes prior to application of any epoxy based coating.**

The fairing compound will be **epidermix 505**, a twocomponent, solvent-free, epoxy resin mortar applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**. The mortar will have a compressive strength of 50 MPa in seven days and a wet density of 1 700 kg/m<sup>3</sup>.

## PACKAGING

**epidermix 505** is supplied in 5 liter kits.

## HANDLING & STORAGE

This product has a shelf life of 24 months if kept in a dry, cool place in the original packaging. In more shortened, extreme conditions, this period may be shortened.

Epoxy compounds in their uncured state are toxic and prolonged skin contact can give rise to dermatitis. When handling epoxy compounds, use should always be made of disposable gloves and barrier creams. Involuntary habits such as face scratching and spectacle adjustment must be avoided.

Similarly eating and smoking whilst or after working with epoxy must be avoided until the individual has washed up.

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## HEALTH & SAFETY

Uncured **epidermix 505** is toxic. Ensure the working area is well ventilated during application and drying. Avoid flames in vicinity. Always wear gloves when working with the material and avoid excessive inhalation and skin contact. If material is splashed in the eye, wash with plenty of clean water and seek medical attention.

Cured **epidermix 505** is inert and harmless.

## IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavors to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot – because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied – accept any liability either directly or indirectly arising from the use of **a.b.e.®** 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.

**a.b.e.® 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.