a.b.e.® Construction Chemicals

epidermix 319

LOW-SLUMP, HIGH STRENGTH EPOXY MORTAR/ADHESIVE

DESCRIPTION

epidermix 319 is a two-component, solvent-free epoxy resin bedding mortar/adhesive with low slump characteristics. The product has particularly high adhesive characteristics and will cure under damp conditions.

USES

- For fast repairs to honeycombed concrete.
- Reinstatement of damaged arises and stair treads.
- Repairs to damaged precast concrete elements.
- As a bedding mortar and adhesive.
- Fast high strength repairs to all concrete surfaces.
- Repairs where non-slump characteristics is a requirement.

epidermix 319 can be applied in sections up to 50mm thickness in horizontal locations and 12mm in vertical locations in a single application without the use of formwork. Greater thickness can be achieved by the application of subsequent layers. Consult the local **a.b.e.®** office for further information.

ADVANTAGES

- Early high strength and therefore minimizes down time.
- Good resistance to a wide range of chemicals.
- Suitable for structural applications.
- High strength typically twice as strong as good quality concrete.
- Will cure under damp conditions and under standing water.

SURFACE PREPARATION

Cleaning of the surface to be repaired is best achieved with a light sand, grit blasting, and/or scabbling to remove all loose material, contaminants such as oil, grease, corrosion products or any other deleterious materials. Any corroded, exposed steel must be cleaned in a bright finish and concrete cut back behind the steel to fully expose the back of the bars. See data sheet 'Preparation of Surfaces'.

All repairs to be cut back to a minimum of 5mm to a sawn edge. Minimum application of **epidermix 319** is 5mm.

PROPERTIES @ 20°C	
Compressive strength (ASTM C109)	> 80 MPa @ 7 days
Flexural strength	> 7 MPa @ 7 days
Tensile strength (ASTM C 307)	> 10 MPa @ 7 days
Mix ratio	1:1 by volume
Practical cure	24 hours
Full cure	7 days
Compacted wet density	Approximately 1 800 kg/m³
Chemical resistance	The high density of **epidermix 319** resists attack by chemicals in polluted environments

CHEMICAL RESISTANCE	
Acetic acid	5% High
Diesel fuel/petrol	100% Very High
Hydrocarbons	100% Very High
Sulphuric acid	34% Very High
Sugar solutions	10% Very High
Fatty acids	100% Very High

BONDING/PRIMING

Priming is not normally required on porous substrates.

Where steel is exposed the cleaned steel should be coated within 3 hours. Apply one full and continuous coat of **durarep ZR primer** and allow to dry before continuing.

MIXING

epidermix 319 is suitable for hand mixing (wear gloves) on a flat, clean surface.

The mixing surface should be wetted with clean water.

The base component should be spread out 10 – 12mm thick. Mix as in mixing cement.

The entire contents of the hardener should then be emptied into the middle of the base component. The base component should then be folded over the hardener and the whole material kneaded until the resultant mortar has an even consistency and uniform colour.

Do not add water to the mixed mortar. Mixing takes at least five minutes as all lumps must be broken down and an evenly wetted mortar obtained.

COVERAGE

1 m²/ litre/1mm thickness

APPLICATION

With a gloved hand, tightly pack the mixed **epidermix 319** behind any exposed steel. On all other areas **epidermix 319** must be applied with a wood float. Smooth finish can be achieved using a wetted steel float. **epidermix 319** can be applied in a single layer up to 50mm thick horizontally and up to 12mm thick vertically.

Thicker vertical sections may sometimes be possible dependent on the profile of the substrate and the volume of exposed reinforcing steel but should generally be built up in layers.

When larger areas are being rendered, a chequerboard application technique is recommended. The application of additional layers must be done within 24 hours @ 20°C, of the first application.

When applying **epidermix 319** under water, it should be carried down in polythene bags after mixing. Small quantities, but not exceeding a minimum 5mm thick should be firmly pressed into place by hand or trowel, working upwards from the bottom of the area to be covered. It is not advisable to cover an area exceeding 0,15 m² at a time. A smooth surface may be obtained by finishing off with a steel trowel or float. The minimum applied thickness of **epidermix 319** is 5mm.

LIMITATIONS

epidermix 319 should not be used in overhead locations. Do not split the kit – use as supplied. Do not expose to moving water during application. Do not use at temperatures below 5°C or above 35°C.

CLEANING

Tools may be cleaned with **abe® super brush cleaner** immediately after use before the material has had time to cure.

MODEL SPECIFICATION

Two-component, solvent-free epoxy resin bedding mortar/ adhesive with low slump characteristics. The mortar/ adhesive will be **epidermix 319**, a two-component, solvent-free epoxy resin system applied in accordance with the recommendations of **a.b.e.® Construction Chemical**.

PACKAGING

epidermix 319 is supplied in 3 kg (1,5 L yield) containers.

HANDLING & STORAGE

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.

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. Note that higher temperatures may shorten the shelf life of the product. **epidermix 319** is non-flammable.

HEALTH AND SAFETY

Wet **epidermix 319** is toxic and flammable. The working area must be 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. If swallowed, seek medical attention immediately – do not induce vomiting.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavours 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.

a.b.e.® is an ISO 9001:2008 registered company
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