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a.b.e.® Construction Chemicals

epidermix 116

WET/DRY CONCRETE AND CEMENTITIOUS SCREED ADHESIVE/EPOXY SCREED PRIMER

DESCRIPTION

Two component, solvent free epoxy compound.

USES

Sealer

- Bonding new (plastic) concrete or screeds to existing hardened concrete in non-load bearing applications.
- Priming of prepared concrete prior to the application of **abe.®screed** epoxy mortar, **abe.®top** and **abe.®dur** type cementitious floor screeds, in order to achieve fully bonded systems.

ADVANTAGES

Adhesion of interfaces of wet/dry concrete, screeds or toppings.

COLOUR

Light amber

SURFACE PREPARATION

The existing surface must be clean and mechanically sound. It must be free of dust, laitance and any foreign matter, as well as cracked or loose stone. Maximum bond strength is only achieved if main aggregate of existing concrete is exposed. This may be done by scrubbing, grinding, abrasive blasting or manual chipping. All cracked or loose aggregate must be removed. In repairing spalls, all loose and friable material must be broken away.

The existing concrete surface should ideally be dry. **epidermix 116** will bond to green concrete. It will not, however, penetrate free water on the surface of any concrete.

PROPERTIES OF WET MATERIAL

Mixing ratio	2:1 volume
Density	1.1 (mixed) g/cm ³
Colour	Base: Clear Activator: Amber Mixed material: Light amber
Flash point	+100 °C
Dilution	Do not dilute
Consistency	Mobile liquid

PROPERTIES DURING APPLICATION

Application by	Stiff bristle brush or short mohair roller
Pot life	28 min/2 L @ 25 °C
Thin film set	15 °C: 8 hrs 20 °C: 6,5 hrs 25 °C: 4 hrs 30 °C: 2,75 hrs 35 °C: 2 hrs
Application temperature	15 °C to 40 °C
Volume solids	100%
Spreading rate	3.0 m ² /L
Wet film thickness recommended	330 µm
Practical cure	Bond strength develops at a greater rate than concrete
Full cure	7 days
Fire resistance of wet film	Non-flammable
Viscosity (P)	4.5 (20 max)
Gel time	40 minutes

PROPERTIES DURING APPLICATION

Bond strength (MPa) @ 14 day moisture cure	11 (10.3 minimum)
Water absorption % @ 24 hrs	0.1 (1.0 maximum)
Heat deflection temperature	43 °C

PROPERTIES OF CURED PRODUCT PROPERTY EVALUATION (LIMIT)

Type	2
Grade	1
Linear co-efficient of shrinkage on cure	0.002 (0.005 max)
Compressive yield strength (MPa) @ 7 days	49 (34.5 min)
Tensile strength (MPa) @ 7 days	42 (13.8 min)
Elongation at break (%)	6 (1 min)
Flexural strength (MPa)	68
Flexural rupture deflection (mm)	4.3

COVERAGE

3.0 m²/litre, depending upon substrate texture and porosity.

MIXING

Separately stir the contents of both containers well, use a can opener to remove the lip from both containers. Add the entire contents of the activator tin to the base and stir with a flat paddle until homogeneous. This task takes at least five minutes.

APPLICATION

epidermix 116 should be spread onto the surface as soon as possible after complete mixing, since in mass form an exotherm develops rapidly, and gelation takes place. Apply the compound in a thin layer, and only once the can is emptied, should an attempt be made to spread to working thickness.

SPECIFICATION COMPLIANCE

Complies with the requirements of ASTM C881-90 Type II, Grade 1, Class C.

epidermix 116 is best spread by means of a stiff bristle brush. A paint brush with bristles shortened by 50%, may be used. On large areas, a stiff bristled yard broom is feasible.

The compound should be spread at a rate of about 3.0 m²/L to provide an approximate wet film thickness (WFT) of 330 µm. Coverage is very much controlled by texture of the surface.

The plastic concrete mix should be of as low a slump as feasible and **MUST** be cast into the adhesive layer while the latter is still tacky. If tack has been lost, a further application of **epidermix 116** is required. If the original film has hardened, it must be roughened before application of the new layer of epoxy. New concrete must be placed within the open time cited, under 'Properties of Thin Film Set'.

CURING OF NEW CONCRETE

Care must be taken to see that the new concrete is adequately cured, as in good concreting practice.

This curing is particularly vital where thin concrete layers are involved, and should be continued for at least 5 - 7 days, before application of **epidermix 116**.

CLEANING

abe® super brush cleaner before dried/cured.

APPLICATION TEMPERATURE

Temperature accelerates or retards time to use.

MODEL SPECIFICATION

The two component epoxy adhesive and primer for wet to dry concrete in non-load bearing applications will be **epidermix 116** applied in accordance with **a.b.e.® Construction Chemicals** specification.

PACKAGING

epidermix 116 is supplied in 2 and 5 litre kits.

2L (Code: 11605054)

5L (Code: 11605005)

HANDLING & STORAGE

All **epidermix** related products have a shelf life of 12 months if kept in a dry, cool store in the original, unopened packs. If stored

at high temperatures and/or high humidity conditions, the shelf life may be reduced.

HEALTH & SAFETY

Wet **epidermix 116** is toxic and flammable. Ensure the working area is well ventilated during application and drying. Avoid flames in vicinity.

Avoid inhalation of dust and contact with skin and eyes. Suitable protective clothing, gloves, eye protection and respiratory protective equipment should be worn.

Cured **epidermix 116** is inert and harmless.

NB: When transporting liquids and semi liquids by aircraft, ask for material safety data sheet.

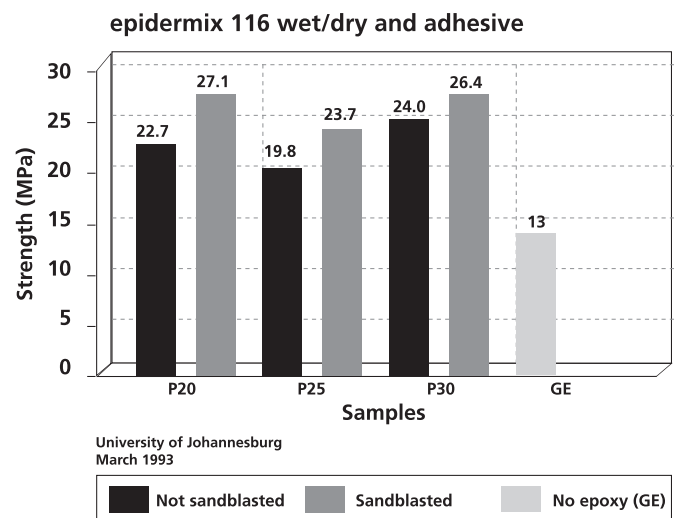
The use of barrier creams provides additional skin protection. If contact with skin occurs, wash with water and soap. Splashes into eyes should be washed immediately with plenty of clean water and medical advice sought.

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.



Compressive strength of specimens bonded with **epidermix 116** using mortar of different strengths. Mortar surfaces are either sandblasted or not sandblasted prior to application of **epidermix 116**. GE is control sample with no **epidermix 116**.

DATE UPDATED: 30/10/18