

epidermix 350

Structural dry-to-dry epoxy adhesive

DESCRIPTION

Two-component, solvent-free, filled, polysulphide modified epoxy compound.

USES

- Structural bonding of precast concrete, brickwork, steel, aluminium elements to themselves and in any combination.
- Bonding of fibre cement and unglazed ceramic to most structural materials. Suitable where gap-filling properties as well as adhesion are required.

NOTE: Bonded concrete assemblies should always be used in such a way that there is a compressive stress permanently on the bond line.

FEATURES & BENEFITS

- Structural adhesive for most building materials.
- Use as a gap filler.
- Non-slump.
- High ultimate strengths.
- Non-shrink.
- Mixing control with coloured components.

SURFACE PREPARATION

The concrete surfaces must be clean, mechanically sound and dry. They 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 scabbling, grinding, abrasive blasting or manual chipping. All cracked and loose aggregate must be removed.

Steel must be degreased and abrasive blast cleaned to a minimum of Sa 2,5 on the Swedish Code of Practice SIS 055900.

PROPERTIES OF WET MATERIAL	
Mixing ratio	2 base : 1 activator by volume
Density	1.29 g/cm ³
Colour :	
Base	Black
Activator	White
Mixed	Blue – Grey
Flash point	+ 100° C
Dilution	Do not dilute
Consistency	Paste
Toxicity	Uncured material is toxic
Shelf life	2 years from date of manufacture
Storage conditions	Under cover in cool conditions
Packaging	500ml, 1l, 2l

Aluminium must be abraded with medium grit emery paper and washed with **thinners no. 3** to degrease the surface and remove all debris of preparation. Apply adhesive as soon as possible after solvent application, to reduce re-oxidation of metal surface.

PROPERTIES DURING APPLICATION	
Application by	Trowel or putty knife
Application temperature range	10° C – 40° C
Spreading rate	1 litre/m ² @ 1mm thickness
Recommended wet film thickness	5mm maximum
Volume solids	100%
Practical cure	5 days
Full cure	14 days
Fire resistance of wet material	Non-flammable
Equipment clean-up	abe super brush cleaner

PROPERTIES OF CURED MATERIAL	
Toxicity	Cured material is non-toxic
Maximum service temperature	60° C
Compressive yield strength	75.1 MPa
Tensile strength	22.2 MPa
Bond strength in concrete	Bonded assembly fails in concrete Arizona Shear Test using +60 MPa concrete
Colour	Grey
Steel/steel lap shear	11 MPa
Keep bond line to minimum thickness	

POT LIFE (MINUTES)			
	500ml	1l kit	2l kit
15° C	120	100	80
20° C	90	75	60
25° C	60	50	40
30° C	45	37	30
35° C	30	25	20

CURE PERIOD DAYS	LAP SHEAR STRENGTH – MPa		
	10° C	15° C	25° C
5	0.1	13.3	10.6
14	11.8	11.8	12.2
28	9.4	12.2	11.9

BONDING / PRIMING

Self priming.

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MIXING

Always carry out mixing in coolest area available.

Stir both containers well, individually. If using an entire kit, remove the lip from both containers using a tin opener. Remove the required amount of base and activator from the containers and place them side by side on a clean board or steel plate.

Mix together by using trowels or paint scrapers, until a streak-free, grey material results. This is likely to require at least 5 minutes.

Remove mixed material to a clean board prior to placing, to obviate the chance of picking up any unmixed material.

COVERAGE

1litre/m² at 1mm thick.

APPLICATION

Apply mixed **epidermix 350** to one working face, placing material in such a fashion that the highest point of the application is in the centre and no depressions exist in the surface of the compound.

Mate the other face to be bonded in the wet adhesive mound so that material extrudes all around the bonded assembly. Scrape extrusion off to obtain a neat finish. If an extremely neat finish is required masking tape may be used.

Any bonded joint must be kept under full compression for at least 5 days.

CLEANING

abe super brush cleaner before dried/cured.

PROTECTION ON COMPLETION

Maintain compression on bonded surfaces until cured, but permanently for concrete assemblies.

TEMPERATURE AND RELATIVE HUMIDITY

See tables of "Properties", "Pot Life" and cure period.

MODEL SPECIFICATION

Two component, polysulphide modified, dry to dry, structural epoxy

adhesive for precast concrete, steel and brickwork in any combination.

The structural adhesive shall be **epidermix 350**, a two component, solvent free, polysulphide modified, dry to dry epoxy adhesive applied in accordance with the manufacturers recommendations, **abe Construction Chemicals (Pty) Ltd** and have a steel/steel lap shear strength of 11 MPa.

PACKAGING

epidermix 350 is supplied in 500ml, 1 litre and 2 litre metal containers.

HANDLING & STORAGE

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

HEALTH & SAFETY

Wet **epidermix 350** is toxic and flammable. Always ventilate the working area well during application and drying. Avoid flames in vicinity. Always wear gloves and eye protection when working with the material and avoid excessive inhalation and skin contact.

If material is splashed in the eye, wash with copious quantities of clean water and seek medical attention.

Cured **epidermix 350** is inert and harmless.

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

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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