

abeflo AS

Antistatic self-levelling epoxy floor system

DESCRIPTION

abeflo AS is a four-component, easy to apply, solvent-free, resin-based floor topping laid at 2 mm thick.

USES

abeflo AS provides a hard-wearing, seamless, antistatic floor with an electrical resistance in the range 0,05 –100 M Ω (5 x 10⁴ - 1 x 10⁸ ohms, in accordance with BS 2050).

FEATURES & BENEFITS

- Meets BS 2050 antistatic requirements.
- Seamless and hygienic finish, no crevices where dirt and bacteria can gather.
- Excellent chemical resistance to sugars and acids.
- Easy to clean and sterilise, low maintenance requirement.
- Attractive, light reflectant appearance.
- High abrasion resistance.
- Solvent free, low odour.

SURFACE PREPARATION

All surface contaminants, laitance and dust must be removed to provide a dry, dust-free, textured surface to ensure excellent adhesion.

Substrate Requirements

- Must have sufficient strength to support loads applied through the topping.
- Must be free from rising damp.
- All contamination must be removed to give a clean, dry, open textured surface.

Substrate Treatments

To re-strengthen and restore weak toppings or joints, use **Isocrete PHS**. If moisture content is above 75% RH as per BS8203, use **Isocrete Aqualock DPM** Surface Damp Proof Membrane.

Substrate Movement

All moving joints must be carried through the **abeflo AS** and properly sealed.

Construction joints and cracks may be covered but if substrate movement occurs the **abeflo AS** will reflect the crack.

SURFACE IMPERFECTIONS

Imperfections should be repaired with an Epoxy Scratch Coat. Refer to abe Construction Chemicals for specification.

BONDING / PRIMING

Apply two coats of **epidermix 116 Epoxy Primer** to the prepared surface, allowing no more than 24 hours between coats. **abeflo AS primer** must be applied within 24 hours of the second coat of **epidermix 116 Epoxy Primer**.

Electrical resistance should be tested prior to overcoating. A result of > 0,05M Ω (5 x 10⁴ Ω in accordance with BS 2050) is essential before application of **abeflo AS**.

MIXING

Add the carbon fibres, which are inside Filler D, to the Base A container and mix with a slow speed drill and helical spinner head for 30 seconds (Do not mix by hand).

Pour the total contents of Hardener B into the Base A container and drain thoroughly. Mix for a further 2 minutes. Transfer the mixed Base, Hardener and fibres into a 20 litre mixing vessel. Add Filler C into the vortex, while mixing.

When homogenous, add Filler D gradually, finally mixing for 1 minute until uniform.

MIXERS

Forced action type mixers with paddles or slow speed drills with helical mixing attachments.

Care must be taken not to use a high speed drill as increased air entrainment will occur.

COVERAGE

3,2 kg/m² at 2 mm.

APPLICATION

Using a steel trowel, spread **abeflo AS** over the fully primed surface at the required coverage.

To aid release of any entrapped air and ensure consistent electrical properties, applied **abeflo AS** must be spike-rolled and then spike-rolled again at 90° to the direction of the initial spiking.

NB: Spike rolling must commence at the earliest possible time and completed prior to the initial cure i.e. from 15 to 60 minutes maximum, dependent on air and substrate temperatures.

CLEANING

abe super brush cleaner before dried/cured.

CONDUCTIVE GRID

A conductive network of 10 mm wide, self-adhesive, copper tape is recommended in combination with any **abeflo** anti-static flooring system. The copper tape must be applied directly onto the cured **epidermix 116 Epoxy Primer**, 150 mm in from the perimeter of the application. A further grid of tape should be applied within this area at 3 meter centres. Special attention should be paid to tape areas passing over expansion or bay joints to ensure permanent electrical continuity.

Revision 9203



abe is an ISO 9002 Registered Company.

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

The applied tape matrix must be secure and fully bonded to a confirmed earth point.

EARTHING

Refer to a qualified electrical engineer for precise requirements. In general, earthing points should be connected to the grid at every 200 m².

PROTECTION ON COMPLETION

Protect against traffic and spillage until cured. Most epoxies chalk and degrade in extensive sunlight.

TEMPERATURES & HUMIDITY

For best results and easy laying, the **abeflo AS** should be stored and used at temperatures between 10° C-25° C. It is not advisable to lay below 7° C or above 30° C.

MODEL SPECIFICATION

The floor topping will be **abeflo AS**, a four-component, solvent free, anti-static resin based system applied 2 mm thick in accordance with **abe Construction Chemicals'** recommendations including all necessary primers and electrical checks by the engineer.

PACKAGING

30 kg composite packs consisting of Base A, Hardener B, Filler C, Filler D and Carbon fibres.

HANDLING & STORAGE

Stored unopened in dry conditions between 10° C and 25° C, shelf life will be at least 12 months.

HEALTH & SAFETY

abeflo AS is alkaline and should not be allowed contact with skin and eyes. When wet it is toxic and flammable. Always ventilate the working area well during application and drying. Avoid flames in the vicinity. Avoid inhalation of dust and contact with skin and eyes. Suitable protective clothing, gloves, eye protection and respiratory protective equipment should be worn. 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.

Cured **abeflo AS** is inert and harmless.

NB: 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.

COLOURS

Available in a range of standard colours.

In the instance of pale colours, antistatic additives within this product will contrast with the background colour causing a faint textured effect. This is only visible on close inspection and is essential in maintaining antistatic performance.

Batch to batch colour variation may occur. Ensure that materials for final application are always drawn from the same batch.

Where colour matching is required over more than one order or delivery **abe's** Technical Department must be contacted prior to placing the order(s) and the requirements stated clearly on all orders relating to the project(s).

Revision 9203



abe is an ISO 9002 Registered Company.

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

CHEMICAL RESISTANCE	EXCELLENT	GOOD	LIMITED
Excellent resistance to sugars and most acids (organic and inorganic)			
Citric acid 10%	+		
Acetic acid 5%		+	
Lactic acid 10%		+	
Sulphuric acid 25%	+		
Hydrochloride acid 25%	+		
Oil	+		
Sugar syrups	+		
Caustic soda	+		
Petrol		+	
Detergents		+	
Acetone			+
Methanol			+
Consult abe Construction Chemicals for more specific requirements.			
Excellent = No change in product even after long-term contact.			
Good = No change in the product after 1 month contact, either no long-term test results, or some change after long-term contact.			
Limited = Will resist 2 – 3 hours before irreversible damage will occur or is destroyed.			
PHYSICAL PROPERTIES			
	10° C	20° C	
Foot traffic	36 hrs	24 hrs	
Vehicle traffic	72 hrs	48 hrs	
Fully cured	7 days	5 days	
Compressive strength	> 55 N/mm ²		
Flexural strength	> 33 N/mm ²		
Tensile strength	> 15 N/mm ²		
Bond strength	> cohesive strength of concrete		
Water absorption	0% (Korstner test method)		
Abrasion resistance	< 0,05 mm (BS 8204)		
Impact resistance	< 0,5mm (BRE screed tester)		
Decontamination classification	Good (as per BS4247 part 1 test A)		
Electrical resistance	5 x 10 ⁴ – 1 x 10 ⁸ ohms (to BS 2050)		

Revision 9203



abe is an ISO 9002 Registered Company.

Technical data sheet