



a.b.e.[®] Construction Chemicals
abe.[®] screed

EPOXY MORTAR FLOORING SYSTEM

DESCRIPTION

abe.[®]screed is a four-component solvent free flooring system comprising a clear resin and hardener system, pre-packed blended aggregate and a ready-for-use pigment paste.

USES

abe.[®]screed is hard-wearing and chemical-resistant decorative mortar for a seamless flooring surface. **abe.[®]screed** is used in areas that are subject to heavy mechanical wear. **abe.[®]screed** also provides a slip resistant finish. Refer to **abe.[®]cote 217** mortar for greater chemical resistance.

NB: Epoxy flooring must not be used as a screed-out-of-doors.

Typical end-use locations are:

- Schools
- Factories
- Laboratories
- Food processing areas
- Supermarkets
- Garages

ADVANTAGES

- Seamless and hygienic finish when sealed, no crevices where dirt and bacteria can gather
- Excellent chemical resistance to sugars and acids
- Clean and sterile, low maintenance requirement
- Non-slip finish
- High abrasion resistance
- Solvent-free; low odor
- Far longer life than unprotected concrete floor
- Excellent resistance to damaging liquids

PROPERTIES OF WET MATERIAL	
Mixing ratio	See quantities under packaging for 5L Kit and Bulk Pack
Density of Resin	1.084Kg/L
Density of Mortar	2.017Kg/L
Colours	Pale Grey G62 Med. Sea Grey G24 Drakensberg Green H36 Light Stone C37 Red Oxide Leaf Green (Chrome oxide)
Flash Point	>100°C
Dilution	Do not dilute
Shelf Life	2 years from date of manufacture and in sealed containers @25°C

PROPERTIES DURING APPLICATION	
Work Life	1 to 2 hours (after spreading)
Volume Solids	100%
Curing time @ 25°C	Touch: 8hrs Light foot traffic: 24hrs Full cure: 7 days
Over-coating time @25°C	Minimum: 12 hrs Maximum: 36 hrs
Application temperature range	>15°C & <35 °C
Do not apply coating if humidity is in excess of 85% @ 21°C or 75% @ 10°C.	
Do not apply coating if the substrate temperature is at least 3°C (5°C is better) above dew point.	

PHYSICAL PROPERTIES OF CURED FILM	
Maximum service temperature	60°C
Shrinkage after cure	Negligible
Weather resistance	Chalks on external exposure
Chemical resistance	Good resistance to water, oil, fats, greases, diesel, dilute mineral acids and alkalis.

SURFACE PREPARATION

PRECAUTIONARY NOTES

- The substrate must be dry before application. For concrete, moisture content, tests must be conducted prior to application of the priming system. Maximum moisture content should be between 4-5%. (preferably a Protimeter Survey Master or equivalent, or Dynamic Calcium Chloride moisture "weight gain" over 24 hours, or at least a practical overnight "plastic sheet test" is also advisable (approx. 1m² masked down on surface).
- Concrete substrate must have a minimum tensile strength of 1.5N/mm².

Concrete shall be free of all laitance and preferably should be lightly vacuum blast cleaned leaving a uniform texture. All surface defects may be patched with **abe.®screed** – see under application below.

BONDING/PRIMING

Prior to application of **abe.®screed**, apply a tack coat of neat flooring resin. The **abe.®screed** is trowelled directly into this wet coat within 30 minutes of priming. Should the application of the screed be delayed, the tack coat should be blinded with **abe® coarse silica sand** while still tacky and allowed to cure. All excess and unbonded aggregate must be vacuumed away. This will provide a mechanical key suitable for bonding. Apply **abe.®screed** within 48 hours.

MIXING

The resin and hardener must be pre-mixed prior to use. Colour Additives: If colour is desired, the appropriate pigment paste is added to the Base at the specified rate.

PRECAUTIONARY NOTES

- When decanting base from bulk supply, thorough stirring must be accomplished beforehand.
- In order to avoid colour variation in large expanses, one must ensure that the same batch product component is used and is carefully and accurately dispensed (factory colour batching available on request). Proper mixing and proportioning of the epoxy binder (base and activator), filler and pigment is essential for good results with no colour variation from mix to mix. Transfer pre-measured volume of flooring base resin to mixer. Add pigment and activator and homogenize. Add filler slowly and mix well.

NOTE:

A slow speed mixer must be used. Ensure that the mixing vanes are below the surface of the mix (liquid components) to minimize air entrapment. The stirrer mixing vane configuration should be such as not to introduce unwanted aeration. The blended liquids are then thoroughly mixed with the "special" graded aggregate using a rotating pan type mortar mixer.

COVERAGE

Recommended dft per application	3.5 to 10 mm
Theoretical coverage for dft of 5mm	5.0 L/m ²

APPLICATION

PRECAUTIONARY NOTE

Prevailing weather conditions must be taken into account otherwise surface defects can occur (see under "properties of wet material"). **abe.®screed** epoxy mortar mixture is immediately used to fill in any holes, cracks and crevices using a margin trowel. The material is then spread with a gauge rake, trowel or screed box, to the desired thickness.

Finally the material is evenly compressed using a plastic finishing trowel, finish moving the trowel from left to right. The finished surface should be relatively smooth, free of trowel marks and without open areas. **abe.®screed** can be used for making turn-ups on walls, columns and other surfaces to a height of 150 mm. Careful application should ensure that the trowelled floor is non-porous and will not require an additional sealer coat. However, if severe chemical spillage is encountered and doubt exists regarding the non-porosity of the flooring, a sealer coat should be applied over the cured floor. **abe.®screed** should be sealed with abecote 436 clear epoxy sealer coat. It must be appreciated that sealing of **abe.®screed** compromises its natural non-slip finish, but abrasive fillers may be incorporated into these sealer coats to restore and in some cases improve non-slip properties. They are applied at a rate of about 15-30 g/m². See 'Nonslip Abrasives' literature. All over-coating times must be strictly adhered to. **abe.®screed** will not cure if applied at below 10° C.

CLEANING OF EQUIPMENT

abe® super brush cleaner before setting.



PROTECTION ON COMPLETION

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

MODEL SPECIFICATION

The flooring system will be **abe.®screed**, a four-component, solvent-free, epoxy comprising a clear resin and activator blended with a pre-packed graded aggregate and a colour pigment applied in accordance with **a.b.e.® Construction Chemicals'** recommendations, including **abe.®cote 436** sealer as directed.

HANDLING & STORAGE

All **abe.®screed** related products have a shelf life of 2 years 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.

PACKAGING

Small Pack (yield 21.70 l)

Resin: Base and Activator 5L (Kit) (400-01-005)

abe.®screed Filler: (200-51-019) 2 x 19 kg

Pigment paste: (200xy350) 0,350 kg

Bulk pack (yield 325.49 l)

Resin: Base: (400-05-025) 2 x 25L
Activator: (400-10-025) 1 x 25L

abe.®screed Filler: (200-51-019) 30 x 19 kg

Pigment paste: (200-xy-350) 15 x 0,350 kg

HEALTH & SAFETY

Product safety information required for safe use is not included. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The safety data sheet is available from your local **a.b.e.® Construction Chemicals** sales representative.

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.



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