



a.b.e.[®] Construction Chemicals **METHODOLOGY** **abe.[®]cote 400 hi-build**

OLD CONCRETE

The surface has to be clean, sound, dry, free of oil and deleterious matter prior to applying the system. See datasheet "Preparation of Surfaces".

All the repair areas are to be effected such that a smooth uniform finish is achieved; a new screed or scraper coat may be required. This finish is important in thin film applications less than 2 mm else the irregularities will reflect through the coating and is even more pronounced when gloss finishes are applied. The surface profile should not exceed 25 percent of the coating thickness if smooth finishes are required.

NEW CONCRETE

The surface has to be clean, sound, dry, free of oil and deleterious matter prior to applying the system. See datasheet "Preparation of Surfaces".

The surface must be finished such that all the falls are correct and ready to receive the epoxy coating system. The surface profile should not exceed 25 percent of the coating thickness if smooth finishes are required. The success of any application depends on the strength of the concrete surface. A simple but effective test can be done with the use of an Elcometer adhesion tester. Adhesion failures at levels below 0,8 MPa indicates a relatively weak surface and the performance of the coating on this surface will be subject to doubt.

PREPARATION

In both cases above when the surfaces have been prepared the laitance has to be removed by one of the following methods:

1. Light grit blast, Vacuum blast or diamond grinding
2. Remove all deleterious matter and fill any holes and irregularities with **epidermix 314** or **epidermix 318**.

3. Due to flooring substrates been subjected to traffic a suitable scraper coat is to be applied if surface irregularities are present. The following is recommended:

Mix **abe.[®]cote** flooring resin with **abe[®] sand No. 1** to form the scraper coat in the following ratio's:

2 litre of mixed resin: 4 kgs of fine sand (Sand No. 1 – 7319) – Yield + 3,48 litres

Thoroughly mix the material and apply the material using a steel float and finish to a smooth texture.

The surface has to be sound and clean prior to application. See data "Preparation of Surfaces"

APPLICATION

Primer

Should a scraper coat be used then omit **abe.[®]cote WD 337** as a primer and ensure the top coat is applied within 48 hours, otherwise prime with two coats of **abe.[®]cote WD 337** prior to applying the **abe.[®]cote 400 hi-build**.

Apply the primer coat **abe.[®]cote WD 337** to the surface as per datasheet – followed by a second coat is required. One of the functions of the primer coat is to seal the surface and prevent air migrating through which causes "fish eyes" in the main coating; should the surface be porous an additional coat of **abe.[®]cote WD 337** may be required.

Main Coating

Apply the **abe.[®]cote 400 hi-build** to the primed surface as per datasheet – 2 coats are required resulting in a final dry film thickness between 400 and 500 microns.

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

See datasheets for additional information.

Mixing

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. Rotating drum mixers with fixed blades are most satisfactory. Mixing times of about 5 minutes are usual, this being long enough to mix thoroughly and leave adequate working time for laying the floor.

Transfer pre-measured volume of flooring base resin to mixer. Add pigment and filler, homogenise and allow to stand for a while. This will facilitate filler wetting and allow entrapped air to escape.

Add pre-measured volume of flooring activator resin and homogenise.

Application

abe.®cote 400 hi-build flooring compound may be applied by brush or short fibre roller or trowelled on to the required thickness, followed by spike rolling to release any entrapped air. All overcoating times must be strictly adhered to.

If **abe.®cote 400 hi-build** is applied at below 10°C, do not expect curing times to be as rapid as when applied at 25°C. Curing will not proceed below 10°C.

Anti-slip application

Apply, within 48 hours, a single coat of **abe.®cote** flooring resin to the cured surface of **abe.®cote 400 hi-build**. Into the wet coating evenly broadcast the anti-slip aggregate at a rate of 50 grams per square metre, followed by rolling with a short fibre roller to obtain an even distribution and allow to cure. The quantity of non-slip aggregate and size may vary depending on the texture and degree of finish required. The ideal non-slip aggregate to be used is aluminium oxide.

Overcoat time of 48 hours maximum must be adhered to at all stages.

In all cases for each product the intercoat application periods are to be strictly adhered to. All the datasheets are to be read for mixing, application procedures, pot life and coverage rates etc. it must be appreciated that rendering the surface non-slip compromises the low dirt pickup of untreated systems.

Properties of wet material

Mixing Ratio:	See respective datasheets
Density Resin:	1,07
Mix:	1,48
Flash point:	None
Dilution:	DO NOT DILUTE
Shelf Life:	2 years from date of manufacture

Properties during application

Application by:	Brush or short fibre roller
Pot Life:	40 min.
Work life:	1 to 1,5 hours (after spreading)
Average dft per coat:	200 – 400 µm
Theoretical coverage for above dft:	2,5 – 5 m ² /L
Overcoating time @ 25°C	
Minimum:	12 hours
Maximum:	48 hours
Curing time @ 25°C	
Touch dry:	8 hours
Light foot traffic:	24 hours
Full cure:	7 days



CLEANING EQUIPMENT

The use of **abe® super brush cleaner** will remove any uncured material from the tools.

IMPORTANT NOTE

This datasheet 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 datasheets 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.

PREPARATION TOOLS FOR LIQUID SYSTEMS

Substrate to be clean, sound, dry and free of laitance. Concrete to be minimum 25 MPa in strength. Refer to **a.b.e.®** datasheet on surface preparation.

TOOLS

Preparation

1. Light grit Blaster, vacuum blaster, diamond grinder or scarrifier depending on preparation required

Application of Primer

1. Mixing drum,
2. Mixer, Metabo RW 1100 Epoxy mortar mixer or similar,
3. Short mohair rollers,
4. Brushes,
5. **abe® super brush cleaner**,
6. Masking tape,
7. Rolls of paper (to cover/protect completed areas)

Application of System

1. Mixer
2. Mixing bins as per above (all screeds require a pan Mixer – Porta mixer or similar)
3. Triangulated notch trowel (thickness required will determine the size rake, 1mm system requires a 2 mm rake, 2mm requires a 4mm rake etc),
4. Hand trowel,
5. Flat trowel,
6. Floor spreader or squeegee
7. Spiked Shoes,
8. Spiked Rollers
 - a. 12mm for self levelling
 - b. 32 mm for **abe.®screed SLC P**

Other Equipment Required

1. An industrial floor cutter (minimum 6 mm wide blade for floors)
2. Smaller hand held cutting/grinding equipment for work close to walls
3. Brushes
4. **abe® super brush cleaner**.
5. Masking tape and rolls of white paper to protect painted walls etc.
6. A stop watch in order to measure the correct mixing time
7. Various small tools – trowels, blades, brushes, coving equipment
8. Safety equipment

Optional

1. Laser distance measuring device.
2. A scmidt hammer for measuring the strength of concrete.
3. A moisture meter (Tramex or similar)
4. An alcometer to measure coating adhesion.
5. A device to measure wet film thickness TBA
6. A device to measure dry film thickness TBA
7. Drop sheets to cordon off areas
8. Thermometer to measure application temperature.

