



Amended Feb 2019

## DATA SHEET – HARDCOTE

### Description:

A cementitious flooring system designed to give a thin coat with a relatively smooth surface finish. Ideal for recoating old screed floors etc provided the substrate is sound. Can also be applied over wood floated or steel trowelled new mortar screeds.

Especially suitable for Chemstains. **Hardcote is for interior usage and is not suitable for outdoors, exterior patios or where it is exposed to rain.**

### Surface inspection and preparation:

Tap the base of the screed to ensure the concrete is sound. Scrutinize the entire floor area for small spillages of glue, creosote (used on roof timbers) etc as these will mirror through and possibly change the colour of the Hardcote in that specific area.

**Smooth screed:** Use Africote Acid Edge to open the pores of the substrate allowing better grip. Refer to relevant datasheet. Floors must first be thoroughly rinsed and neutralised. Make sure surface is in a sound condition, free of powdering, flaking materials etc.

All screeds, and especially high porosity screeds, **must** receive at least 2 coats of Africote Matt Sealer prior to application of the Hardcote to reduce absorption. The Matt Sealer is vital to ensure pinholes are reduced and the Hardcote stays workable during application.

**Tiles:** Should Hardcote be applied over tiles, the joints may mirror through. To minimise this possibility, seal the cleaned joints with Matt Sealer, apply a thicker mix of Smooth Cote and bond, allow to dry thoroughly, if the grouting is left wet this will mirror through, then seal again with Matt sealer and apply Hardcote over the entire surface. A moisture reading of the joints should be done before work commences. Moisture content of screeds or joints should not be more than 4%.

### Mixing:

Pour exactly 5 litres of clean water into a **clean metal** mixing drum. Do not use a plastic bucket, as the mechanical stirrer will scrape off pieces of plastic. The plastic pieces will interfere with the placing of the Hardcote. It is essential to use an impellor driven by a powerful electric drill. Hand mixing will not remove the lumps that result from adding the powder to water.

*Do not add additional water to the powder. It will affect performance*

Slowly add 1 x 25 Kg bag of Hardcote powder to the water while stirring. Mix thoroughly and allow to stand for 7 minutes to gel. Stir the mix thoroughly again prior to application on the floor. As the mix is quite fluid and will therefore settle quickly, stir the mix in the container each time just prior to pouring onto the floor. As the product contains graded aggregates that can separate, the full pocket of dry powder should be thoroughly mixed before making up batches that use less than 1 full pocket.

### Application:

Only if the original floor is rough and uneven should it be necessary to apply a second coat of Hardcote. Pour the Hardcote evenly onto the floor, enough to trowel at arm's length. Use good quality stainless steel trowels with rounded corners. Work quickly and evenly. Each applicator should have a maximum of 1.5-metre width to trowel. If possible, apply the HARDCOTE across the shortest width and continue down the longest length, as one would do in a passage. Ensure there is a point of exit. Finish the area in one continuous operation.

The trowelled edge must not be allowed to stiffen or dry throughout the application process. Unightly trowel and joint marks will be visible if the coating is allowed to dry at any time during the application.

**NB:** Trowel with an even or sweeping action to give 1 to 2 mm thickness.

The material is virtually self-levelling. Finish each section as soon as possible to allow trowel lines to settle. Complete the floor in one operation. **Once mixed the pot life of the product is 20 minutes.**

**Vertical Surfaces such as Steps:** As the product is self-levelling it is easier to paint the product, than trowel the product, onto vertical surfaces. Work from top step down to bottom step. Be careful of run marks and pooling of product where the vertical surface meets the flat surface.

### **Second coat (if applicable)**

Allow the first layer of Hardcote to dry for a minimum of 24 hours.

Apply 1 coat of Africote **Matt Sealer** to the first layer of Hardcote. Let the sealer dry for about 3 Hours before applying the 2<sup>nd</sup> layer of Hardcote.

Do not let the Matt Sealer become covered with dust or get contaminated in any way. It is acceptable for the Matt Sealer to stand overnight. The mixing procedure is the same as for the first coat. Apply the Hardcote using the same method as described for the first coat.

Note that a trowel marks will show. A skilled applicator will be able to minimise the trowel marks. It is more of a slow pulling action than trowelling.

### **Notes:**

The metal container and mixing tools used for mixing the Hardcote must be clean. Do not use a container that has been used to mix gypsum-based products (Rhinolite)

Stains or spills of carpet glue, creosote etc on the substrate will mirror through the Matt Sealer and the Hardcote. These types of marks must be removed before application of Matt Sealer and Hardcote.

Using Hardcote as a final floor finish: Colour changes can result from different concrete mixtures and strengths. The colour change will not be that noticeable in different rooms, but in the same area it will be noticeable. Please note: the Hardcote has no colour retainers and was not designed as a final coating. Colour variation must be explained to your client.

Some of the problems to watch out for:

A section of the floor has been chopped up and a new section placed. Often the concrete or screed in the repaired section is of an inferior mix. This will lead to delamination.

No damp proof sheeting has been used in the area where concrete has been chopped up and replaced. Take moisture readings.

Direct sunlight onto a floor will heat the surface considerably. This will cause the Hardcote to harden quicker than usual during application and may result in fine cracks.

Do not sand small areas. Once sealed, sanded areas will be very noticeable.

If for some reason it is necessary to sand the Hardcote, the entire floor should be evenly sanded with the same grit and to the same extent.

### **Applying Chemstain:**

Minimum drying time for the Hardcote before Staining or sealing is 72 **hours** in summer and longer if two coats of Hardcote were applied. The moisture content of the surface must not exceed 4%. Any liquid or rainwater reaching the Hardcote before it has been sealed will leave marks. These may or may not be covered by the Chemstain. Chemstains must be applied as per data sheet.

### **Sealing:**

Refer to the relevant Africote Sealer Data Sheet before sealing any floor.

**APPLICATION SHOULD BE CARRIED OUT BY QUALIFIED AND TRAINED APPLICATOR.**

If the Hardcote is not laid according to these instructions, Africote will not entertain any claims.

### General Care of Floors:

High heels will leave marks in the surface.

Chairs with a small footprint and/or sharp edges on the foot-piece may leave marks. "Rocking" on a chair increases the pressure on the floor.

Cover the foot-piece of the furniture with carpeting or a plastic cap.

Do not drag heavy furniture across the floor.

Take care in areas where moisture can penetrate, like full length windows exposed to rain, showers and skirtings. The water/moisture penetration occurs where the Hardcote ends, and the wall or vertical glass starts.

Any moisture penetration will cause the floor to darken considerably in these areas. The darker area is most noticeable.

When dropped, heavy knives and cutlery can penetrate the sealer, leaving a small and almost invisible hole.

If the floor is regularly cleaned with a mop, water penetration will occur at these tiny holes and dark spots will appear.

**Usage of Floors:** Even though the Twin Pack Sealer is of the best quality, the coating remains a plastic film of 200 to 400 microns thick. This coating will scratch with rough usage. Furniture is often moved onto the floor before it has fully hardened. Take the necessary precautions.

<b>Coverage:</b>	25 kg Hardcote plus 5 litre of water covers +-7- 8 sq. m. per coat.
<b>MPA:</b>	15-19 Mpa Concrete hammer HT-225A in accordance with DIN1048 and BS1881
<b>Packaging:</b>	Hardcote is packed in woven polypropylene pockets. Powder 25 kg
<b>Shelf Life:</b>	6 Months
<b>Washing of Tools:</b>	Clean tools with tap water before the product starts to harden.
<b>Health and Safety:</b>	Hardcote is not flammable.

Hardcote contains fine cement and aggregates. Avoid inhalation. Contact with product may cause irritation to sensitive skin. Wear suitable protective clothing, gloves, and eye/face protection. In case of insufficient ventilation, wear suitable respiratory protection.

### FIRST AID:

**Eyes:** In case of contact with eyes do not rub. Immediately flush with plenty of clean water. Seek medical attention.

**Skin:** Wash thoroughly with soap and water.

**Inhalation:** Move to fresh air. If symptoms persist or develop, or if ingested, seek medical attention.

Wash thoroughly immediately after handling.

NB: **No** claims will be entertained where applications are done using other manufacturer's products in combination with Africote products. This includes bonding liquids, filler coats, sealers, undercoats etc.

**NB:** Due to ongoing research and development undertaken on our coatings and the application process, coupled with technological advances in the industry, please consult our factory to ensure you have the latest Data Sheet.