

cement densifier for self-levelling screeds

Self-levelling screeds made from cement/sand/water/MortaKote will produce an outstandingly high mpa yet flexible hardwearing floor!

Water / Cement -20% Compressive Strength unchanged Flexural Strength X 3 Tensile Strength X 3 Impact Strength X 3 Adhesion X 10 Abrasion Resistance X 30



MortaKote THE BREAKDOWN OF MORTAKOTE AND ITS PROTOCOLS



SPREADRATE/COVERAGE

MortaKote is one component of a formulation thus depending on the variable chosen you will experience vastly different spread rates. The average is approximately 2m2/lt at 3mm thick.



SUPER HARD AND DURABLE SCREED

MortaKote is an amazingly hardwearing screed with high impact Mpa resilience. It is advisable to seal the screed with KonKote to prevent staining etc. www.kote.co.za/konkote



MIXING PROTOCOL

There are 4 components to the formula which work in harmony to create any finish you may want. 2 x dry components and 2 x wet components. Mix the dry into the wet until you reach the desired thickness. Mix cement and sand in equal parts as the dry element and water and MortaKote in equal parts as the wet element. 50/50/50/50



THE TOOLS MortaKote is a water based product, meaning the only liquid you need to clean your paintbrush or spray machine is water



PROPERTIES OF MORTAKOTE MortaKote is an eco-friendly, UV Stable, VOC free, hydrophobic, flexible, dries clear, resistance to any new growth of algae and lichen fungus, and has incredible adhesion



CURING AND DRYING TIMES MortaKote requires warmer sunny weather in order to dry and cure. Drying time before light traffic is 2hrs in good warm weather. MortaKote takes 7 full days to cure.

MortaKote is a cement binder which imparts extraordinary performance characteristics to cement at a molecular level.

A chemical reaction takes place when four elements are blended together, namely:

- 1. Cement (Dry Component)
- 2. Sand (Dry Component)
- 3. Water (Wet Component)
- 4. MortaKote (Wet Component)

Varying the ratio of these components will result in anything from a sloppy pourable slurry for self-leveling floors to a stiff plaster for concrete repairs to vertical structures.





Some facts and figures...

Applications

As a 6mm screed over old tarmac it will achieve a high MPA rating with excellent impact resistance. Can be overcoated and sealed with KonKote for easy cleaning and tinted to any colour.

Workshop/Showroom Floors

A thin screed over a rough concrete floor of 4mm will provide a high-impact surface with a near-perfect finish. Add 2 coats of KonKote for final smooth sealer.

Cracks in Concrete

Open crack
Vacuum
Fill

It's that simple



Lets get down to the nitty gritty of the thing...

Mixing Ratios 50/50/50 - It's that easy!

Mix your dry components in equal parts = 1 part cement to 1 part clean fine sand.

Mix wet components together, 1 part water to 1 part MortaKote.

Depending on the application alter the dry component until the desired rheology is achieved. More wet logically results in a more pourable slurry. Less wet the greater the stiffness will be.

> <u>CAUTION:</u> <u>It will set much faster when</u> <u>less wet/liquid is in the ratio</u>









MortaKote EXAMPLE MIXTURE

Following on from the previous page we will be looking at what sort of ratios to use when wanting to mix the MortaKote with your cement. The below ratios are for a self leveling screed.

Substrate Levels Process: Using MortaKote

The ingredients you'll need are as follows:

DRY ELEMENTS: Fine Clean Sand and Blue Cement WET ELEMENTS: Clean Water and MortaKote

<u>FORMULA:</u> 2 parts fine clean sand to 1 part blue cement = <u>DRY MIX</u> 2 parts clean water to 1 part MortaKote = <u>WET MIX</u>

<u>METHOD:</u>

Mix 3 parts of the <u>DRY MIX</u> to 1 part of the <u>WET MIX</u> - this will give you a self leveling screed/slurry

<u>STEP 1:</u> Take your freshly made MortaKote screed and apply it to the area you are going to apply the PathKote premix

<u>STEP 2:</u> Use a trowel to level out the screed and then leave to dry/cure This will take about 24hrs.

Now you can move onto the next phase!



Important 'need to know' information...

<u>Sand</u>

Since this one word describes thousands of options, it is recommended that for most uses a 60 mesh silica sand (washed) and dried, be blended with the cement. (For a super fine finish use 100mesh sand)

All sand is not equal!

If you magnified fine sand, each grain should be somewhat jagged. This shape adds to the overall strength of the final layer of self-levelling screed.

Spread the Slurry!

Once you have blended/mixed your slurry to the optimum rheology (thickness) in a 20lt Bucket, start pouring this onto the floor at the furthest point from the exit.

Spread the slurry from left to right in a zig-zag pattern whilst reversing backwards. Use a soft rubber squeegee or professional adjustable floor spreader.

Once the entire floor has been 'floated' and you have exited the room, <u>CLOSE THE DOOR</u>! You do <u>NOT</u> want dogs, cats or other fellow humans to spoil your newly spread surface.





Time to Cure

Would you look at the time?!

The MortaKote formulation will undergo a chemical reaction which takes 24 hours to harden

DO NOT throw a party and dance on your new floor!

Instead, wearing socks, walk around on the floor to inspect for any 'lumps' or imperfections.

The only reason you will have 'lumps' is because the slurry was not mixed/blended long and thoroughly enough.

In order to avoid this, please ensure there are no lumps or clumps in your slurry BEFORE pouring.

Use a sieve if you are unsure.

<u>ALSO! DO NOT BLEND AT HIGH SPEEDS!</u> This will create unwanted foam and will leave the surface full of small holes. Leave the floor to cure for another 24 hours and if needed, you can run over the surface with a 100 grit sander, vacuuming as you go.



Important 'need to know' information...

Sealing the Screed

Use KonKote as the final seal.

KonKote is a clear sealer but we can tint it to any colour if desired.

Use a lambswool flat mop spreader to coat the floor evenly.

3 coats with 60 minutes apart is the ideal protection for most floors

Leave to cure fo 2 days before furnishing!

Ask for a brochure on KonKote for more details! (or simply download off our website www.kote.co.za/konkote)

> Kote Products formulate for the highest efficiency possible without regard to cost. We refuse to make use of cheap alternatives so as to compete with the 'rat race'. Our products are produced for a discerning clientele



What could go wrong?

ITS IMPORTANT TO BE INFORMED



Applying MortaKote seems to be easy, right? You simply spread it on the floor and thats it right? Sadly like all products there are a few things you have to know in order to do the job successfully, and we are going to break those down here.

1. Application: The thing you have to remember is that you are dealing with a substrate that may well be contaminated. So PROPER surface preparation is critical!

2. The Surface Prep: English is a strange medium of communication, i say one thing you hear another:) When we state PROPER preparation, what does that mean to you? Here is how we recommend you do it, because if it is not done PROPERLY then it will cost you dealy because we do not guarantee the job you are doing! DEGREASE the substrate with KleenKote and rinse until no more foam is created when using a high pressure water jet. The grease is in the foam and if you leave some behind that is where you will lose adhesion! Dry the surface as much as is possible and apply a layer of MortaKote slurry. The surface does not need to be bone dry!

3. Your expectations are not met: Its your fault! whatever your complaint, it is because of shortcuts or not following these instructions to the letter. If you have lumps its because you did not add the dry component SLOWLY to the wet component WHILST stirring or mixing with an electric mixer. It will take two people to mix in this manner! You must be pedantic in mixing to a smooth paste.

4. Pets and People: Do not allow people or pets to wonder over your new floor for 24hours at least!



MortaKote is a product manufactured by Kote Products (Pty) Ltd

Find more information about MortaKote and other Kote Products on our website or feel free to get in touch via email or simply call www.kote.co.za - 0312616866 Technical Advice: dave@kote.co.za Admin: kels@kote.co.za