

## PRODUCT DATA SHEET

# Sikafloor®-3 QuartzTop

Mineral dry-shake floor hardener

## DESCRIPTION

Sikafloor®-3 QuartzTop is a one-part, pre-blended, mineral dry-shake hardener with optional colouring for concrete. It comprises cement, specially selected quartz mineral aggregates and admixtures.

## USES

Sikafloor®-3 QuartzTop may only be used by experienced professionals.

Sikafloor®-3 QuartzTop is used as a:

- Mineral dry-shake topping for monolithic floors in industrial, commercial and public buildings

Please note:

- The Product may only be used by experienced professionals.

## CHARACTERISTICS / ADVANTAGES

- Medium wear resistance rating
- Good impact resistance
- Cost-effective surface hardener
- Dust-proof
- Fast application
- Easy to clean
- Quality-assured factory blending
- Wide range of colours available

## APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 13813:2002 Screed material and floor screeds — Screed material — Properties and requirements — Cementitious screed material

## PRODUCT INFORMATION

<b>Chemical Base</b>	Natural mineral aggregates graded and mixed with cement, admixtures and pigments
<b>Packaging</b>	25 kg Refer to the current price list for available packaging variations.
<b>Shelf Life</b>	12 months from date of production
<b>Storage Conditions</b>	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.
<b>Appearance / Colour</b>	Powder Natural (concrete grey). Other colours upon request.
<b>Density</b>	2250 kg/m <sup>3</sup> after 28 days

## TECHNICAL INFORMATION

<b>Abrasion Resistance</b>	AR 1.0	Abrasion depth 52 $\mu\text{m}$	BCA	(BS EN 13892-4)
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The Product has an abrasion depth of 5.5 cm<sup>3</sup> over 50 cm<sup>2</sup> according to the Böhme method.

## APPLICATION INFORMATION

<b>Consumption</b>	3–5 kg/m <sup>2</sup> Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply the Product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.	
<b>Layer Thickness</b>	Maximum	3.0 mm
	Minimum	2.5 mm
<b>Ambient Air Temperature</b>	Maximum	+30 °C
	Minimum	+5 °C
<b>Relative Air Humidity</b>	Maximum	98 %
	Minimum	30 %

## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

#### IMPORTANT

##### Poor finish due to unsuitable additives

A poor quality finish can result from using compactable dry-shake hardeners on concrete with unsuitable additives. The correct selection of additives to concrete is crucial for the concrete mix design. Contact Sika Technical Services for further advice.

1. Do not use air-entraining agents. Air-entrained concrete is not a suitable substrate for the application of dry-shake hardeners.
2. Do not use concrete where some cement has been replaced by fly ash, as this makes the mix sticky and less workable.
3. Use Sikament® or Sika Viscocrete® super plasticisers to ensure the optimum quality of concrete, and – where fibres are used –, their optimum dispersion within the mix.

The concrete deliveries must be of consistent quality

and comply with local standards. A concrete slump in the range 75 mm to 110 mm will normally give best results.

The slab must be of good quality concrete with a water-cement ratio of between 0.45 and 0.55 and must be consistent while being poured. The compressive strength must be a minimum of 25 N/mm<sup>2</sup>.

### APPLICATION

#### IMPORTANT

##### Damaged finish due to excessive drying of the surface

Exposure to environmental conditions during application can cause cracking and colour inconsistencies.

1. Do not apply the Product in strong wind or draughts.
2. Keep the floor laying operation as clean and protected from the environment as possible.

#### IMPORTANT

##### Poor finish due to uneven application

Poor application practices can result in an inconsistent finish.

1. Ensure an even application of the Product and use correct timing and trowelling techniques.

##### Low relative humidity below 40 %

Note: Efflorescence can appear on the surface at low relative humidity.

##### High relative humidity above 80 %

Note: Bleeding, slower curing and hardening can occur, and extended finishing operations may be required at high relative humidity.

##### Prevailing conditions affecting application time

Note: Application time for dry-shake products is influenced by every variable which affects the placing of concrete, and can therefore vary substantially, depending on the prevailing conditions.

### Variability of concrete causing colour variations

Note: Variations in concrete characteristics such as water content and cement quality may lead to slight colour variations.

Note: Colour variation during the drying period is normal for this system and is to be expected.

Note: Dry-shake hardeners give a finish to concrete with some colour variation across the floor due to the natural variability of the concrete on to which they are applied.

### Repeated power trowelling

Note: Repeated power trowelling brings tension into the surface and can result in fine cracks appearing on the floor. This is typical for all power-trowelled concrete surfaces and does not have a negative impact on the floor performance.

### MECHANICAL APPLICATION: AUTOMATIC SPREADER IN CONJUNCTION WITH A LASER SCREED

#### Preconditions

The concrete has been cast, compacted and levelled.

1. Start spreading the Product almost immediately after the concrete has been levelled, in one application only, to allow for the hydration of the dry shake.
2. Trim the edges where adjoining slabs are to be poured. Note Using the Product results in the slab surface becoming stiff more quickly than usual.
3. Perform the final finishing using walk-on or ride-on power trowels repeatedly in two perpendicular directions to achieve the final surface appearance.

### MANUAL APPLICATION

#### Preconditions

The concrete has been cast, compacted and levelled.

1. Depending on the conditions, remove the surface bleed water or allow it to evaporate.
2. Determine whether the concrete is ready for the dry-shake application process. Note This process can start once the concrete can be stepped on without leaving a print deeper than 3–5 mm.
3. Trowel the surface of the concrete with power trowels. Note Compaction with the trowel can start as soon as the weight of the power trowels is supported by the concrete.
4. Evenly scatter two-thirds of the required material on to the compacted and levelled concrete. The Product is applied in two stages. The quantities applied in each stage depend on the desired overall consumption and layer thickness. Note Casting the Product further than 2 metres from point of casting reduces the consistency of the finish. Apply the Product without creating ripples in the concrete surface.
5. Work the first layer of the Product into the slab using power trowels.
6. Immediately scatter the remaining third of the required material.
7. **IMPORTANT** Never add water to the surface where the dry shake has been applied. Work the second

layer of the Product into the slab using power trowels.

8. Trim the edges where adjoining slabs are to be poured. Note Using the Product results in the slab surface becoming stiff more quickly than usual.
9. Perform the final finishing using walk-on or ride-on power trowels repeatedly in two perpendicular directions to achieve the final surface appearance.

### CURING TREATMENT

1. Cure and seal the Product immediately after finishing.
2. Use the water-dispersed curing and sealing compound Sikafloor® ProSeal W or the solvent-based curing and sealing compound Sikafloor® ProSeal-22. Refer to the Product Data Sheet for details.

### JOINTS

1. After finishing operations and completing saw cuts, clean off any residual saw lubricant or slurry immediately.
2. Fill joints with Sikaflex® PRO-3 or another appropriate Sikaflex® sealant in accordance with the floor design requirements.

### CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically.

### CLEANING

To maintain the appearance of the floor after application, remove all spillages immediately. Regularly clean the floor using suitable detergents and waxes and equipment such as rotary brushes, mechanical scrubbers, scrubber dryers, high pressure washers, and wash and vacuum techniques.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

### Sika (Singapore) Pte Ltd.

28 Tuas South Ave 8

Singapore 637648

Phone: +65 6861 0632

Fax: +65 6862 3915

Email: sales@sg.sika.com

www.sika.com.sg



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