BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-3 QuartzTop (PK)

Mineral dry shake floor hardener

DESCRIPTION

Sikafloor®-3 QuartzTop (PK) is a one part, pre-blended, (coloured) mineral dry shake hardener for concrete comprising of cement, specially selected quartz mineral aggregates and admixtures

USES

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CHARACTERISTICS / ADVANTAGES

- Medium wear resistance rating
- Impact resistance
- Cost effective surface hardener
- Dust proof
- Fast application
- Easy cleaning
- Increased resistance to oils and grease
- Quality assured factory blending
- Wide range of colours

PRODUCT INFORMATION

Chemical Base	Natural mineral aggregates graded and mixed with cement, admixtures and pigments.
Packaging	25 kg bags
Appearance / Colour	Natural (concrete grey). green, tile red, plum, light grey, yellow, chamoa, blue, black. Other colours upon request.
Shelf Life	12 months from date of production
Storage Conditions	Store in original unopened packaging in a cool and dry condition between +5 °C and +35 °C. Protect from direct sunlight, heat and moisture.
Bulk Density	≈ 1.4 kg/l

TECHNICAL INFORMATION

Abrasion Resistance	Class AR1.0 (EN 13892-4, BCA)

Note: Sikafloor®-3 QuartzTop (PK) has a BCA abrasion depth ~52 µm and ~5.5 cm³/50 cm² , Böhme

APPLICATION INFORMATION

Consumption	~3–5 kg/m² the consumption will depend on application method and the concrete mix (w/c-ratio) This figure does not allow for surface profile and wastage.
Layer Thickness	~2.5–3.0 mm at the recommended coverage of ~ 5.0 kg/m²
Ambient Air Temperature	+5 °C min. / +30 °C max.
Relative Air Humidity	30 % min. / 98 % max.
Substrate Temperature	+5 °C min. / +30 °C max.

Applied Product Ready for Use

Substrate temperature	Foot traffic
+10 °C	~18 hours
+20 °C	~12 hours
+30 °C	~8 hours

The above values are dependant upon the concrete reaching its design strength for serviceability and will be affected by changing ambient conditions, particularly temperature and relative humidity.

SYSTEM INFORMATION

System Structure

Substrate	Fresh concrete slab (See Substrate Quality)
Dry shake	Manual or machine application of Sikafloor®-3 QuartzTop (PK) Levelling of surface by means of power trowel or laser screed. Final smoothing with power trowel.
Curing compound	Sikafloor® ProSeal W or Sikafloor® ProSeal -22

Use products mentioned above as indicated in their respective Product Data Sheets.

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.

USES

- The application of Sikafloor®-3 QuartzTop (PK) must not be carried out in strong wind or in dry conditions.
- Do not use concrete where some cement has been replaced by fly ash, as this makes the mix sticky and less workable.
- Variations in concrete characteristics such as water content and cement may lead to slight colour variations.
- Dry shake hardeners give a finish to concrete with some colour variation across the floor due to the natural variability of the concrete onto which they are applied.
- To ensure optimum of colour consistency, it is essential that the floor laying operation is as clean and protected from the environment as possible.
- Colour variation during the drying out period is normal for this system and is to be expected.
- Every effort must be made to ensure an even application of Sikafloor®-3 QuartzTop (PK). Correct timing and trowelling techniques are essential.
- At low relative humidity (below 40 %), efflorescence can appear on the surface.
- At high relative humidity (above 80 %), bleeding, slower curing and hardening can occur and extended finishing operations be required.
- Shrinking joints are to be created within two days.

Expansion joints are reflected in the surface of the floor.
- As a consequence of repeated power trowelling, which brings tension into the surface, fine cracks may appear on the floor. This observable fact is typical for all power trowelled concrete surfaces and does not have negative impact on the floor performance.

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

The concrete deliveries must be of consistent quality and comply with local standards.
Concrete characteristics are specified by its class deteremined in the static design and by general recommendations for concrete mix design. W/C- ratio must not be to too low as some water is required for hydration of the Sikafloor®-3 QuartzTop (PK).
Generally recommended w/c-ratios are between 0.45 and 0.55 and must be consistent while being poured.
The compressive strength must be a minimum of 25 N/mmSikafloor®-3 QuartzTop (PK).
Use of Sikament® or Sika Viscocrete® super plasticisers is advised to ensure the optimum quality of concrete and where fibres are used, their optimum dispersion within the mix.
Air Entrained Concrete is not a suitable substrate for the application of dry shake hardeners.

APPLICATION

Mechanical Application - Automatic spreader in conjunction with a laser screed
Spread Sikafloor®-3 QuartzTop (PK) evenly onto the concrete immediately after screeding at 3-5 kg/m² in one application.
Manual application
Dependent on the conditions, remove the surfacebleed water or allow it to evaporate. Sprinkle Sikafloor®-3 QuartzTop (PK) onto the screeded concrete evenly in 2 stages(first stage: 3 kg/m²; second stage: 2 kg/m²).
Care must be taken to apply the product without creating ripples etc. in the concrete surface. Casting Sikafloor®-3 QuartzTop (PK) powder carelessly or further than 2 metres from point of casting will reduce the consistency of finish.
Compaction: The first application must be worked into the slab followed immediately by the application of the second stage quantity of Sikafloor®-3 QuartzTop (PK).
Notes:
- Never add water to the surface where the dry shake has been applied.
- Sikafloor®-3 QuartzTop (PK) results in the slab surface becoming stiff more quickly than usual. Careful trimming must take place along the edges where adjoining slabs are to be poured.
- Final finishing for closing pores and removing undulations can be achieved either by hand or powered trowel.

Application time
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. For mechanical application with automatic spreader and laser screed, the spreading can start almost immediately after the concrete has been levelled to allow for the hydration of the dry shake. Compaction with the trowel can start as soon as the weight of the power trowels is supported by the concrete. For manual application, the dry shake must be spread once the concrete can be stepped on, without leaving a print deeper than 3–5 mm. Periodical checking of the condition and development of the concrete will determine the correct time frame for each stage and sequence of application.

CURING TREATMENT

Cure and seal Sikafloor®-3 QuartzTop (PK) immediately after finishing using using a curing compound, Sikafloor ® ProSeal W or Sikafloor® ProSeal-22. (Refer to relevant Product Data Sheet). The sealers additionally harden the surface, decrease dust and reduce liquid absorbtion. Joints: After finishing operations and completing saw cuts, clean off any residual saw lubricant / slurry without delay.
Joints can be filled 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 / cured material can only be mechanically removed.

MAINTENANCE

CLEANING

To maintain the appearance of the floor after application, Sikafloor®-3 QuartzTop (PK)p must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques, etc., using suitable detergents and waxes.

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 recommenda-

tions 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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