# Sikafloor®-3 QuartzTop Coloured mineral dry shake floor hardener

Product Description	Sikafloor <sup>®</sup> -3 QuartzTop is a ready to use dry shake floor hardener composed of cement and hard aggregates of mineral origin. The aggregates used have been selected for their shape, grading and high physical and mechanical quality.	
Uses	Sikafloor®-3 QuartzTop is suitable for surface hardening of floor slabs and screeds where good abrasion resistance and reduced dusting is required. It is suitable for floors subjected to severe mechanical wear, for example:  Warehouses Quays Engineering workshops Parking lots Service stations and factories Ports Garages, etc.	
Characteristics / Advantages	<ul> <li>Intrinsic colouring</li> <li>High resistance to abrasion</li> <li>Reduces dusting</li> <li>Improves resistance to impact</li> <li>Improves resistance to oils and greases</li> <li>Easy to apply. Sikafloor®-3 QuartzTop is broadcast over the fresh slab</li> <li>Saves time and labour costs by eliminating the need for a granolithic screed</li> </ul>	

#### **Product Data**

Form	
Appearance / Colours	Powder; Natural, Light Green, Dark Green, Terracotta and Grey
Packaging	25 kg bags
Storage	
Storage Conditions / Shelf Life	12 months from the date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +30°C.



#### Mechanical / Physical **Properties**

#### **Moh Hardness** 7 - 8 38 N/mm<sup>2</sup> **Compressive Strength** Control Mortar (SIRIM Report 93P860) Sikafloor®-3 QuartzTop 80 N/mm²

#### **Abrasion Resistance**

(SIRIM Report SK940098)

	Weight Loss, mg		
Number of Abrasion Cycles	Control Mortar	Sikafloor®-3 QuartzTop	
250	4,930	290	
500	6,880	630	
750	8,800	780	
1,000	9,880	950	

Fire Resistance

(EN 13501-1)

Fire rating, Classified A1 - Sikafloor  $^{\circ}$  -3 QuartzTop will not contribute in any state of the fire including the fully developed fire.

### **System Information**

Application Details		
Coverage	Sikafloor®-3 QuartzTop shall be applied at a rate of:  4 kg/m² for normal traffic areas  6 kg/m² for heavy traffic areas	
Base Concrete	The base concrete shall be Grade 25 or higher with a workable on-site slump.  The base concrete shall be laid and compacted in accordance with good concrete practice with particular attention to bay edges and corners. Care should be taken to ensure that the slab is laid to obtain an accurate finished profile and that laitance build-up is minimal.	

2

#### Application Instructions

### Application Method / Tools

Sikafloor®-3 QuartzTop shall be broadcasted over the still fresh but stiff concrete base and should be placed in marked bays to ensure an even distribution of materials.

As bay edges are subjected to heavier impact and wear, additional treatment should be considered for these areas. Once the base concrete slab is levelled, sprinkle Sikafloor®-3 QuartzTop along the edges and compact into the surface using a steel trowel. Use approximately 0.5 to 0.6 kg per linear meter over a width of 100 to 120 mm. Saw-cut control joints should also be treated in the same manner.

Timing for application is crucial and the 'readiness' of the base concrete must be determined. A common rule-of-thumb practice is when light foot traffic leaves a 3 – 5 mm imprint. When Sikafloor®-3 QuartzTop is applied too early, too much water will be absorbed by the hardener and this may affect its abrasion resistance. On the other hand, if application is done too late, there will be insufficient moisture from the concrete to complete the hydration process of Sikafloor®-3 QuartzTop. As a result, the floor may "craze and pit".

Sikafloor®-3 QuartzTop is applied in two stages. Use 60% of the specified dosage in the first application and broadcast evenly over the marked area. Once the material is uniformly moistened, compact the floor with a low speed mechanical trowel. When completed, the remaining 40% of Sikafloor®-3 QuartzTop is immediately broadcasted over the floor at a direction perpendicular to the first application. The floor is compacted again using a mechanical trowel when the Sikafloor®-3 QuartzTop is uniformly moistened. Precaution must be taken to ensure that the floor is not overworked.

Do not spray water to wet out surfaces treated with Sikafloor®-3 QuartzTop. This will have a detrimental effect to the overall quality of the floor.

#### **Cleaning of Tools**

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

### Notes on Application /

The application of the dry shake powder 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. Correct timing and trowelling techniques are essential.

At low relative humidities (below 40%), efflorescence can appear on the surface.

At high relative humidites (above 80%), bleeding, slower curing and hardening can occur and extended finishing operations be required.

Slip resistance can be enhanced through chemical ageing. Refer to the Method Statement for Application for details.

#### **Curing Details**

#### Curing

Sikafloor®-3 QuartzTop surface must be protected to prevent rapid water loss which may result in surface cracks. Immediately after final trowelling, apply a Sika proprietary curing and sealing agent such as Antisol®-A, Antisol®-E, Sikafloor®-Proseal 22 or Sikafloor® CureHard-24 (refer to respective Product Data Sheets for details).

3

Sikafloor®-3 QuartzTop

## Applied Product Ready for Use

Depending on the ambient temperature and the type of cement used in the base concrete, the pre-usage waiting time is:

For foot traffic 24 – 48 hours
 For light traffic 7 – 10 days
 For normal traffic 28 days

#### Value Base

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.

# Health and Safety Information

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

#### **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.



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