

PRODUCT DATA SHEET

SikaScreed® HardTop-65

Cementitious rapid and high strength flowable floor levelling screed

DESCRIPTION

SikaScreed® HardTop-65 is a cementitious, 1-part, rapid and high strength, flowable, floor levelling screed and repair mortar for industrial floors. It is suitable as a smooth finished wearing layer or a base layer for Sikafloor® resin-based screeds and coatings.

USES

SikaScreed® HardTop-65 may only be used by experienced professionals.

- Repair of industrial floor coverings with high mechanical loads with fast reworkability and fast use.
- Rapidly coatable levelling mortar for Sika® resin coatings
- Application as bonded, floating screed and screed on separating layer of large industrial surfaces
- Interior and exterior (coating required)

CHARACTERISTICS / ADVANTAGES

- Easy application and leveling possible standing by using a dabble bar
- Very fast curing for immediate use (>40 N/mm² compressive strength after 24 hrs.)
- High abrasion resistance (Class A4 according to Böhme)
- Almost shrinkage-free curing (≤ 0.1 mm/m)
- High chloride penetration resistance
- No shot blasting when coating with Sika® reaction resin systems (≤ 48 hrs.)
- Long smoothing time window (> 60 min.) for perfect surfaces
- Easy to pump
- Coating with Sika® reaction resin systems already after 4 hours from smoothing end
- Mineral, contaminant-free and ecologically harmless
- EMICODE EC1PLUS (very low emission)

APPROVALS / CERTIFICATES

- CE Marking to EN 13813: CT-C65-F7-A6
- CE Marking to EN 1504-3: Class R4
- Fire behaviour: Class A1

PRODUCT INFORMATION

Composition	Special cement binder with fibres and hard aggregates	
Packaging	25 kg bags and 1,000 kg bigbags	
Appearance / Colour	Smooth, grey finish	
Shelf life	Bag (25 kg)	12 months from date of production
	BigBag (1,000 kg)	6 months from date of production
Storage conditions	Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C.	
Density	~2.3 kg/litre (fresh mortar density)	
Maximum grain size	Dmax: 3.2 mm	

TECHNICAL INFORMATION

Abrasion resistance	Class A6 Böhme Class A4* Böhme *with application of Sikafloor®-140 W Troweling Primer	(DIN EN 13892-3)
Compressive strength	~ 40 N/mm ² 24 h (+20 °C) ~ 65 N/mm ² 28 d (+20 °C)	(DIN EN 13892-2 & DIN EN 12190)
Modulus of elasticity in compression	~33,000 N/mm ²	(DIN EN 13412)
Tensile strength in flexure	~5 N/mm ² 24 h (+20 °C) ~7 N/mm ² 28 d (+20 °C)	(DIN EN 13892-2)

SYSTEM INFORMATION

System structure

Exemplary system structure:

Application	Product	Consumption
Bonding primer	SikaScreed®-20 EBB	~1 kg/m ²
Screed	SikaScreed® HardTop-65	~2 kg/m ² pro mm
Troweling primer	Sikafloor®-140 W Troweling Primer	~200-300 g/m ²
Primer / Curing method	Sikafloor®-151 oder PE sheet	~0.8-1.0 kg/m ²

Consumption depends on substrate roughness and application method.
For further system structures, please contact your technical expert.

APPLICATION INFORMATION

Mixing ratio	~3,0-3.75 litre of water for 25 kg of powder
Consumption	~2 kg/m ² per mm layer thickness Consumption depends on substrate roughness and application method.
Layer thickness	8–100 mm
Product temperature	Minimum +10 °C / maximum +25 °C
Ambient air temperature	Minimum +10 °C / maximum +30 °C
Substrate temperature	Minimum +10 °C / maximum +30 °C
Pot Life	~30 min. (+20 °C)
Waiting time to overcoating	Surface finishing or smoothing can be carried out after approx. 90 minutes after application of SikaScreed® HardTop-65. If a rapid coating within a few hours with Sika® reaction resin systems is scheduled, Sikafloor®-140 W Troweling Primer must be applied before the smoothing process. If a rapid coating is not intended, a polyethylene sheet must be applied as a protective cover. Times are approximate and measured at +20 °C and > 50 % r.h. Application times will be affected by changing substrate and ambient conditions, layer thickness and water content. For more information, see the method statement.
Applied product ready for use	Light load ~18 hours Heavy load ~24 hours

Time is approximate and measured at +20 °C and > 50 % r.h.

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- SikaScreed® HardTop-65 is a special cement binder-based mortar which is not compatible with standard Portland cements and therefore must never be mixed or blended with OPC cements or other binders. When hardened, SikaScreed® HardTop-65 can be overcoated with standard OPC cement based products after the required surface preparation.
- Lower or higher material and substrate temperatures, layer thicknesses and water contents significantly delay or accelerate the smoothing time window.
- Do not add water to the surface finish.
- Coverage of the reinforcement with SikaScreed® HardTop-65 must not be considered as carbonation protection.
- Do not apply SikaScreed® HardTop-65 in a hot climate in direct sunlight.
- Cracks due to external circumstances (draught, solar radiation, humidity, climatic conditions) cannot be excluded.
- Cracks due to shrinkage and creep deformations of the substrate below cannot be absorbed by SikaScreed® HardTop-65.
- Existing joints in the substrate must always be brought through the screed and appropriately formed and sealed as required.
- For exterior use, SikaScreed® HardTop-65 must be protected using a coating.

ECOLOGY, HEALTH AND SAFETY

GISCODE: ZP 1

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete substrate must be structurally stable and of sufficient compressive strength ($>25 \text{ N/mm}^2$) with a minimum tensile adhesion strength of 1.5 N/mm^2 . Substrates must be clean, free of all contaminants such as dirt, oil, grease and loose friable material. Cement laitance, coatings or other surface treatments must be completely removed. Cementitious substrates must be prepared mechanically using suitable abrasive blast cleaning or planing / scarifying equipment to remove cement laitance, coatings or other surface treatments and achieve an open textured gripping surface profile suitable for the overlying SikaScreed®.

MIXING

Small - medium volumes

Pour the minimum recommended clean water quantity into a suitable mixing container. While stirring slowly with electric paddle mixer, add the powder to the water and mix thoroughly for at least for 3 minutes adding additional water if necessary, to the maximum specified amount and adjust to the required consistency to achieve a smooth consistent mix. The consistency must be checked after every mix.

Large volumes

Pour the minimum recommended clean water quantity into the forced action mixer / rotating pan or continuous mortar mixer and integral delivery pump. Add the powder to the water and mix thoroughly for at least for 3 minutes to achieve a smooth consistent mix. The consistency must be checked regularly and included in a jobsite quality control plan. Compare mixing consistency with drill and mixing paddle technique.

Pumping

When using a mortar pump with appropriate equipment (e.g. Inotec - InoCOMB). Set up the equipment to achieve a smooth consistent mix. Control the water dosage to achieve the required consistency. Compare mixing consistency with drill and mixing paddle technique. Further information is contained in the method statement.

APPLICATION

The freshly mixed bonding primer is sufficiently applied to the concrete substrate. Already hardened bonding primer is to be removed and applied again before the application of SikaScreed® HardTop-65. The mixed SikaScreed® HardTop-65 is applied wet-on-wet into the system bonding primer and applied with suitable tools until the appropriate layer thickness is achieved.

Easy application standing by using a dabble bar from a layer thickness of 20 mm.

To achieve an improved surface strength, SikaScreed® HardTop-65 should be smoothed with a trowel. Too early smoothing can lead to blistering or cracking. To smooth the surface, board shoes must be worn when walking on the fresh mortar layer. Only use suitable plate and trowel trowels with a large diameter and low weight.

Protect fresh mortar immediately from premature drying using polythene sheet. The curing method should be continued at least over night (18 hours).

Further information is contained in the method statement.

CLEANING OF EQUIPMENT

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

PRODUCT DATA SHEET

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LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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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