

PRODUCT DATA SHEET

SikaScreed®-45 Terrazzo Binder

Rapid hardening cementitious binder for high quality terrazzo floors

DESCRIPTION

Terrazzo binder for high quality, cementitious terrazzo floors that require rapid completion.

USES

- For internal and/or external terrazzo floors. Protect from weather, frost and freeze/thaw cycles.
- For use on concrete substructures and/or on low-shrink SikaScreed® that can be floating or bonded types

CHARACTERISTICS / ADVANTAGES

- Easy to mix using forced-action mixers
- Easy to apply and consistent aggregate distribution
- Nearly self-levelling
- White, slightly grey base colour, custom colours with inorganic pigments
- Can be ground quickly after application
- Almost shrink- and strain-free
- Can be combined with SikaScreed® low-shrinkage, load-distributing screeds for complete rapid solutions
- Can be filled with local decorative aggregates
- Fast overcoating and sealing with selected Sikafloor® and/ or Sikagard® products (pretested)

SUSTAINABILITY

VOC emission classification GEV-Emicode EC1^{PLUS}

APPROVALS / CERTIFICATES

- Tested according EN 13813
- Fire classification acc. EN 13501-1, Class A1

PRODUCT INFORMATION

Composition	Special ternary cement binder – Never mix with other binders.	
Packaging	Bags	25 kg
	Pallets	40 * 25 kg
Shelf life	6 months from date of production, in unopened packaging	
Storage conditions	SikaScreed®-45 Terrazzo Binder must be stored in original, unopened and undamaged, sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Opened bags must be resealed immediately for any future use.	
Appearance and colour	White, slightly grey	
Bulk density	~ 1.5 kg/lt	

APPLICATION INFORMATION

Mixing ratio	For use in commercially available forced-action mixers		
	SikaScreed®-45 Terrazzo Binder	1 part by weight	
	Decorative aggregate ¹	1.2 up to 1.6 parts by weight	
	Total water ²	5.25 up to 6.25 litres per bag	
	¹ only use pre-tested decorative aggregates and always in the tested fractions (the contractor is responsible to control this). ² The total moisture content of damp / wet aggregates must be determined by a Darr test and be considered for total water content. The water demand is strongly influenced by the degree of filling the sieve curve of the aggregates added. A stable and at the same time fluid consistency is a requirement to avoid segregation of decorative aggregates.		
	Note: All externally sourced materials such as sands, decorative aggregates and colour pigments etc., must be checked and tested appropriately before use e.g. to confirm their effects/ long-term behaviour and suitability. This is the responsibility of the contractor. No warranty is given by Sika for external components/ materials, or Sika products mixed with external materials.		
Consumption	Strength class (suitable testing required with aggregates):		
		CT-C40-F6	CT-C50-F7
	Consumption per 10 mm thickness	~ 10 kg/m ²	~ 11 kg/m ²
	Mixing ratio: binder to decorative aggregate	1 : 1.6 ppw	1 : 1.2 ppw
	A total of ca. 22 – 24 kg per m ² per cm layer thickness of the freshly mixed wet mortar is required.		
	Strengths tested according to EN 13892-2 (quality control /F.P.C.):		
	Compressive strength: (3 days)	≥ 25 N/mm ²	≥ 30 N/mm ²
	Compressive strength: (28 days)	≥ 40 N/mm ²	≥ 50 N/mm ²
	Flexural strength: (3 days)	≥ 3 N/mm ²	≥ 4 N/mm ²
	Flexural strength: (28 days)	≥ 6 N/mm ²	≥ 7 N/mm ²
	Surface (adhesion) tensile strength	≥ 3 days	≥ 1.0 N/mm ²
	Surface (adhesion) tensile strength	≥ 14 days	≥ 1.5 N/mm ²
	Note: A density of ≥ 2250 kg/m ³ is assumed for the specified data in this PDS. Locally sourced decorative aggregates must be checked in advance by specific suitability testing. These materials can have a significant influence on the application and then the hardened quality and performance properties, plus the appearance in service of the finished terrazzo floor.		
Layer thickness	10 to 50 mm With SikaScreed® HardTop up to 120 mm		
Ambient air temperature	on installation and then for min. 3 days	≥ 8°C ≤ 30°C	
Substrate temperature	on installation and then for min. 3 days	≥ 8°C ≤ 30°C	
Pot Life	at +20°C	30 - 40 min.	

Waiting time to overcoating

walkable	at +20 °C	≥ ~ 4 hours
grindable	at +20 °C	≥ ~ 20 hours

Professional finishing, impregnation and/or sealing works

After the specified initial grinding and filling works, as defined in advance by the contractor and/or the client, the floor must be thoroughly cleaned whilst still damp. Dirt and grinding dust/ residues must be completely removed before the surface protection works can begin.

A Sikagard®-915 impregnation can then be applied on the dry floor in up to 3 successive operations.

Alternatively, a sealing coat using the Sikafloor® Coat Deluxe system can be applied. The respective Sika product data sheets and method statements should also be referred to and followed for these impregnation or sealing works.

Sika components of the terrazzo floor

The finished appearance and performance of the terrazzo floor in service, are strongly influenced by the decorative aggregate, its integration, and the surface treatment work. SikaScreed®-45 Terrazzo Binder must be used and installed by professional terrazzo flooring contractors, including a suitable initial test area. Sika can therefore make no warranty or accept any liability whatsoever, for its combination with external products, or the visual appearance of the floor in general.

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.

IMPORTANT CONSIDERATIONS

Protect the screeding mortar during the setting and curing process from direct sunlight, draughts, frost, driving rain and high ambient temperatures (> +30 °C). Expansion and connection joints must be brought through the substrate and detailed appropriately, in accordance with the responsible engineers' instructions. Sika recommends a max. 8 m length for a bonded screed (without underfloor heating).

TERRAZZO ON FLOATING SCREEDS

Terrazzo floors with SikaScreed®-45 Terrazzo Binder on floating and / or heated screeds need detailed planning and preparation in terms of their geometry, area divisions, connection details, heat distribution, process etc. Sika must therefore exclude all warranties for combinations of SikaScreed®-45 Terrazzo Binder and floating heated screeds.

However, for individual project advice/ assistance and recommendations without design responsibility, please contact the responsible person in your local Technical Services Department.

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 / PRE-TREATMENT

Dry, clean, free of oil and grease, no cement laitance, or loose friable material. Minimum compressive strength 25 N/mm², minimum tensile adhesion strength 1.5 N/mm².

At the time of the terrazzo screeding works, the structural concrete substrate should have a sandpaper like profile, clean and surface matt damp (SSD), with no standing water.

TERRAZZO BONDED SCREED BOND COAT

On a dry, correctly prepared substrate, we recommend applying Sikafloor®-151 as a sealing primer, which is then broadcasted to excess with 0.3 - 0.9 mm quartz sand on the surface. The surplus sand must be completely removed on the following day.

MIXING

SikaScreed®-45 Terrazzo Binder should be mixed with the selected, tested, local decorative aggregates up to max. 16 mm diameter, according to the design and screed thickness, plus inorganic powder pigments and clean water. The minimum mixing time per batch is 3 minutes. The batches must be 100% consistent to achieve a homogeneous look in the finished floor.

APPLICATION

The viscous terrazzo mortar is applied using a pen squeegee directly on the hardened broadcasted primer. Level, compact and decorate the mortar immediately with a trowel or agitation rod. Pores have to be filled with a colour coordinated surface filler afterwards.

The levels of grinding and pore sealing will be defined and specified in advance by the client, specifier, or specialist contractor, according to the specific project requirements. These suppliers and the buyer or the client or their representative and are therefore not part of the scope of Sika advice. Sample areas of representative size are recommended.

Note:

This technical data pertains to +20°C and 65% RH. Lower temperatures will extend the values given and higher ones will reduce them.

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.

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