

PRODUCT DATA SHEET

SikaScreed®-45 Terrazzo Binder

Rapid hardening cementitious binder for high quality terrazzo floors

DESCRIPTION

Ternary based terrazzo binder for high quality and fast finishing terrazzo floors with mineral character.

USES

- For internal and/or external terrazzo floors
- Protect from weather, direct sunlight, 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 anorganic 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 over-coating and sealing with selected Sika-floor® and/or Sikagard® products (pretested)

SUSTAINABILITY

- VOC-free cementitious binder

APPROVALS / CERTIFICATES

- Tested according EN 13813
- Fire classification acc. EN 13501-1, Class A1
- EC1 PLUS EMICODE

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	

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

¹only use pre-tested decorative aggregates and always in the tested fractions (the contractor is responsible to control this).

²The total moisture content of damp / wet aggregates must be determined bei a Darr test and 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 m² 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 day	≥ 3 N/mm ²	≥ 4 N/mm ²
Flexural strength: 28 days	≥ 6 N/mm ²	≥ 7 N/mm ²
Surface tensile strength ≥ 3 days		≥ 1.0 N/mm ²
Surface tensile strength ≥ 14 days		≥ 1.5 N/mm ²

Note:

A density of ≥ 2250 kg/m³ 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 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

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

Dry, clean, free of oil and grease, no cement laitance, or loose friable material. Minimum compressive strength 25 N/mm², minimum tensile adhesive 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 sealing primer, which is then broadcast to excess with 0.3 - 0.9 mm quartz sand on the surface. The surplus sand must be completely removed on the following day.

JOINTS

All existing construction and expansion joints must be taken from the substrate. Critical structural elements, corner sections that lean out, and asymmetrical areas must be disconnected or separated. Relevant norms are to be considered.

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.

Coloring

The maximum possible dosage of suitable powder oxide pigments is < 4% on the binder weight

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

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 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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ISO 9001, 14001, 45001 –
Lloyd's Register
Sika S.A.C. LLC
Sika International Chemicals LLC
ISO 9001, 14001, 45001 – SGS
Sika Gulf S.S.C. O.
ISO 9001, 14001 – SGS
Sika Saudi Arabia Limited

All products are supplied under
a management system certified
to conform to the requirements
of the quality, environmental
and occupational health &
safety standards ISO 9001, ISO
14001 and ISO 45001.



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