BUILDING TRUST

PRODUCT DATA SHEET

SikaScreed®-548

(formerly MTop 548)

PRE-MIXED FAST SETTING CEMENTITIOUS SCREED MORTAR

DESCRIPTION

SikaScreed®-548 is a one-part, cement-based, ready-mixed, fast-setting screed for indoor and outdoor applications. It provides rapid strength development and is easy to work, suitable for a variety of substrates.

USES

Product is suitable for:
- Bonded and de-bonded screeds, including fast-track installations and screeds on isolating or insulating layers
- Heated screed systems for underfloor heating
- Repair mortar for concrete floors and cementitious screeds
- Flooring in areas exposed to permanent moisture, such as balconies, terraces, and garages
- Interior and exterior floors requiring quick strength development (walkable after ~1 day, tileable after ~3 days)

FEATURES

- Ready-to-use
- Fast setting
- Long working time
- Pumpable application
- Temperature resistant
- Moisture insensitive

CERTIFICATES AND TEST REPORTS

SikaScreed®-548 follows the main requirements of EN 13185 for class CT-C35-F6

PRODUCT INFORMATION

Composition	Special cement with admixtures and aggregates
Packaging	25 kg PE lined heavy duty paper bag
Appearance and colour	Grey powder
Shelf life	Up to 12 months if stored in unopened containers according to manufacturer's instructions.
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight, heat and moisture.
Maximum grain size	~4 mm

TECHNICAL INFORMATION

Resistance to impact	Category A	(BRA test)
Compressive strength	≥ 35 N/mm² (28 days cured at 23°C)	(BS EN 13813)
Flexural-strength	≥ 6.0 N/mm² (28 days cured at 23°C)	(BS EN 13813)
Temperature resistance	-30°C to +80°C	

APPLICATION INFORMATION

Mixing ratio	~2 L of water per 25 kg bag	
Consumption	As a guide: ~22.1 kg/m² of mixed material per cm layer thickness This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level or wastage, etc.	
Layer thickness	Minimum	10 mm for bonded screeds 30 mm for pipes and conduits cover 40 mm for screeds on isolating or insulating layer
	Maximum	80 mm
Ambient air temperature	+5°C min. / +30°C max. For hot weather condition please follow best practices of hot weather application methods or contact Sika Technical Services for advice.	
Application time	~60 minutes Times are achieved when the temperatures of mortar, ambient air and substrate are approx. +23°C over the entire period and the relative humidity does not exceed 50%. See also "General information on the application of rapid setting cement screeds".	
Applied product ready for use	Foot traffic*	~1 day
	Can be tiled with ceramic and/or natural stone:	~3 days
	*Note:Times are achieved when the temperatures of mortar, ambient air and substrate are approx. +23°C over the entire period and the relative humidity does not exceed 50%. See also "General information on the application of rapid setting cement screeds.	
Fresh mortar density	~2.21 kg/l (23°C)	

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

The screed mix must have a stiff-plastic consistency. If the mix is too soft or contains excessive water, the screed will fail to achieve the required strength, leading to shrinkage cracks and bulges. In such cases, equilibrium moisture will be reached only at a later stage. The strength and low residual moisture level, which are critical for the successful installation of subsequent coverings, depend on:

- Compaction of the fresh mortar: Insufficient compaction of pre-mixed mortars for screeds results in low strength of screed.
- Temperature and Humidity: Curing and drying times are strongly influenced by application and substrate conditions. Low temperatures or high humidity can considerably extend these times compared with standard conditions (+23°C). During curing, the relative humidity should not exceed 70%. Always verify the residual moisture before applying coverings.

Notes:

- General guidelines for cement screeds must be followed.
- The rapid curing properties of SikaScreed®-548 should be taken into account.
- Mix only whole bags of SikaScreed®-548; do not split bags.
- SikaScreed®-548 must not be combined with cement, rapid bonding agents, ready-to-mix screeds, dry mortars, fibers, admixtures, additives, or other aggregate mixes.
- Apply SikaScreed®-548 within approximately 60 minutes at +23°C after mixing. Higher temperatures shorten this window; lower temperatures extend it.
- Never add water or fresh SikaScreed®-548 to a mix that has already begun to set.
- For outdoor areas exposed to early rain or strong winds, cover the screed with construction foil until it is walkable.
- Do not use in areas subject to negative hydrostatic pressure (e.g., rising damp).

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

EQUIPMENT

For Small to Medium volumes the following equipment is of use:
- Mixing containers
- Weighing scales
- Water containers
- Water measuring container
- Double spiral mix paddle & drill (< 500 rpm)

For Medium to Large volumes the following equipment should be used:
- Weighing scales
- Water containers
- Water measuring container
- Forced action mixer or rotating pan, paddle or trough type. (Compulsory mixer)
- Mixed material carriers/carts (wheel barrows)

Note : Free fall (tumble) mixers must not be used in any case.

SUBSTRATE PREPARATION

Preparation of substrate for bonded screeds according to BS 8204-1
The substrate must be clean, sound, free from grease, old paint and other residues. Remove heavy contamination mechanically, residues of oil and wax. Smoothed surfaces with a cement slurry on top should be removed by e.g. shot blasting.
Pre-wet the prepared substrate at an early stage, keep damp, apply a suitable Sika® bonding agent and the screed mortar SikaScreed®-548 wet on wet.

MIXING

- Add SikaScreed®-548 in a forced action concrete mixer and mix with water for approx. 1 minute while mixer is running until a stiffplastic consistency is achieved. The amount of water required per 25kg bag of SikaScreed®-548 is about 2 L.
- Single bags of SikaScreed®-548 can also be mixed in a suitable vessel (e.g. hob bock) with a basket stirrer attached to an electric drill. Put adequate amount of gauging water in the vessel, add SikaScreed®-548 and mix until a stiff-plastic consistency is achieved.

In case of higher water temperature, the water could be cooled down using clean ice.

APPLICATION

Spread the mortar with a shovel, trowel or screeding bar, compact, scrape off with a levelling board, rub down with a wooden board and smooth if necessary. Protect newly applied screed from too rapid dehydration (like wind, direct sunlight eg). The applied screed should be covered with polythene sheet immediately following finishing (with all leading edges lapped and secured) and left covered for a minimum 2 days.

CLEANING OF EQUIPMENT

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

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. 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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