

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, pre-bagged, fast setting screed, suitable for indoor and outdoor use.

USES

- Suitable for indoor and outdoor use.
- Suitable for areas which are exposed to permanent wetness.
- Fast track bonded screeds and de-bonded screeds installed on an isolating or insulating layer.
- Suitable for heated screeds.
- Suitable to be used as repair mortar for concrete floors and cementitious screeds.

FEATURES

- Can be tiled after approx. 3 days, already walkable after approx. 1 day
- Ready-to-mix mortar, no on-site mixing with sand required
- Long working time can be worked with and smoothed for almost 1 hour despite of short curing time
- Suitable for application by pump, even at higher temperatures
- Temperature resistant from -30°C to +80°C, therefore suitable for balconies, terraces, garages, industrial floor coverings cleaned with superheated steam
- Insensitive to moisture, therefore suitable for areas exposed to permanent wetness

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
Shelf life	12 months from date of production
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.
Appearance and colour	Grey powder
Maximum grain size	~4 mm

TECHNICAL INFORMATION

Resistance to impact	Category A	(BRA test)
Compressive strength	≥ 35 N/mm ² (28 days cured at 23°C)	(BS EN 13813)
Flexural-strength	≥ 6.0 N/mm ² (28 days cured at 23°C)	(BS EN 13813)
Temperature resistance	-30°C to +80°C, frost resistant	

APPLICATION INFORMATION

Fresh mortar density	~2.21 kg/l (23°C)	
Consumption	As a guide: ~22.1 kg/m ² 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.	
Mixing ratio	~2 L of water per 25 kg bag	
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
	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".	

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.
- Internal Reference - Version: MBS_CC-UAE/Top_548_05_16/v1/07_20

FURTHER DOCUMENTATION

- General Method Statement (GMS)
- The recommendations and guidelines set out in relevant standard (e.g. BS 8204-1, SIA 252, EN 13813, etc.)

IMPORTANT CONSIDERATIONS

General Information on the Production of Rapid Setting Cement Screeds

The mix must be of a stiff-plastic consistency. If the consistency is too soft and/or contains too much water, the screed does not achieve the appropriate strength resulting in shrinkage cracks and bulges. The equilibrium moisture will not be reached until later.

The strength and low residual moisture level important for laying subsequent coverings are dependent on the following factors:

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 may considerably increase at low application and substrate temperatures or high humidity (compared with the times at +23°C). The relative humidity should not exceed 70% during the curing process. In principle, the residual moisture should be checked prior to the application.

NOTES

- The general guidelines for cement screeds must be observed.
- The rapid curing properties of SikaScreed®-548 must be taken into consideration.
- Mix only whole bags of SikaScreed®-548. Do not split the bags.
- SikaScreed®-548 must not be mixed with cement, rapid bonding agents, ready-to-mix screeds, dry mortars, as well as fibres, admixtures or additives and/or blended with aggregate mixes.
- Apply SikaScreed®-548 within approx. 60 minutes (at approx. +23°C) after mixing, higher temperatures reduce, lower temperatures increase the time given.
- Never add water or fresh SikaScreed®-548 to reconstitute a mortar mix which has already begun to set.
- In outdoor areas where early exposure to rain is expected or under extremely windy conditions it is recommended to cover the installation with construction foil until walkable.
- Do not use where negative hydrostatic pressure is evident (i.e. rising damp)

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

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 the bonding agent Sikafloor®-500 and the screed mortar SikaScreed®-548 wet on wet.

MIXING

Mixing technique:	Force action concrete mixer
Conveyor technique:	Pneumatic
Consistency of mortar:	Stiff-plastic

- 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

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 – SGS
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ISO 9001, 14001 – TÜV
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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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