MasterTop® 548

Fast setting screed mortar – ready blended for fast track cementitious screeds

FIELDS OF APPLICATION

- For indoor and outdoor use, also suitable for direct use.
- For areas which are exposed to permanent wetness.
- For fast track bonded screeds and screeds installed on an isolating or insulating layer.
- Suitable for heated screeds.
- As repair mortar for concrete floors and cementitious screeds.
- For layer thicknesses from 10 to 80 mm for continual layer of application.

PACKAGING

25kg PE lined heavy duty paper bag

SHELF LIFE

Minimum 6 months when stored in dry conditions, no permanent storage over +30°C.

FEATURES AND BENEFITS

- 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.
- Pipes & conduits must be covered by a layer thickness of 30 mm.

TECHNICAL DATA*

Material:

Material base	special cement with admixtures and aggregates
Maximum grade	4 mm
Components	1 part
Bulk density	approx. 1.6 g/cm³
Consistency	powder
Colour	grey
Screed classification in accordance to BS EN 13813 can be produced * - Compressive strength after 28 days - Bending tensile strength after 28 days	 CT-C30-F5 ≥ 30 N/mm² ≥ 5 N/mm²
BRE test (impact resistance)	<3mm with 4kg weight

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APPLICATION

Consumption	approx. 21 kg/m² per cm layer thickness
Quantity of gauging water	approx. 2 litres of water for 25 kg of **MasterTop 548**
Layer thickness - minimum - maximum - for pipes & conduits	 approx. 10 mm for bonded screeds; approx. 40 mm for screeds on isolating or insulating layer approx. 80 mm min. 30 mm to cover
Working temperature **	+5°C to +30°C
Mixing technique	Force action concrete mixer
Conveyor technique	pneumatic
Consistency of mortar	stiff-plastic
Working time *	approx. 60 minutes
Curing time * - foot traffic after - can be tiled after - Residual moisture content	 approx. 1 day approx. 3 days (with ceramic and/or natural stone) ≤2% after approx. 3 days
Temperature resistance	-30°C to +80°C
Frost resistance	yes
Resistance to permanent wetness	yes

** 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".*

*** For hot weather condition please follow best practices of hot weather application methods or contact BASF technical Services.*

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 **MasterTop 500** and the screed mortar **MasterTop 548** wet on wet.

APPLICATION PROCEDURE

The recommendations BS 8204-1 should be followed during the application of **MasterTop 548.**

1 - MIXING

1.1.1 Add **MasterTop 548** in a forced action concrete mixer and mix with water for approx. 1 minute while mixer is running until a stiff-plastic consistency is achieved. The amount of water required per 25 kg bag of **MasterTop 548** is about 2 litres.

1.1.2 Single bags of **MasterTop 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 **MasterTop 548** and mix until a stiff-plastic consistency is achieved.

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2 - 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.

GENERAL INFORMATION ON THE PRODUCTION OF RAPID SETING 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:

1 – COMPACTION OF THE FRESH MORTAR

Insufficient compaction of pre-mixed mortars for screeds results in low strength of screed.

2 - 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.

PLEASE NOTE

- The general guidelines for cement screeds must be observed.
- The rapid curing properties of **MasterTop 548** must be taken into consideration.
- Use only whole bags of **MasterTop 548**.
- **MasterTop 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 **MasterTop 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 **MasterTop 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.
- Clean tools and mixing vessels with water immediately after use, once the product has cured cleaning with water is not possible any more.

HEALTH AND SAFETY

MasterTop 548 contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. the eyes). Risk of serious damage to eyes, therefore avoid contact with eyes and prolonged contact with skin. In case of contact with eyes immediately rinse with plenty of water and seek prompt medical attention. In case of contact with skin change contaminated clothing at once and immediately wash skin with plenty of soap and water. Wear suitable protective gloves (e.g. cotton gloves soaked in nitrile) and safety goggles/face protection. If ingested seek prompt medical attention and show packaging or this product data sheet. Keep out of reach of children.

For further information refer to the BASF Material Safety Data Sheet.

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Saudi BASF for Building Materials Co. Ltd.
P.O. Box 1884, Al Khobar, KSA
Tel: +966 13 8538600, Fax: +966 13 8328671
www.master-builders-solutions.sa