

MASTERTOP[®] 230

Heavy duty metallic floor topping

Description

Premixed industrial floor topping based on hydraulic binder and specially treated metallic aggregates.

Uses

- Loading platforms.
- Traffic and maintenance areas for tanks and heavy machinery.
- Processing areas in steel mills.
- Transfer stations in quarries, mines, waste, treatment plants, etc.
- Bunkers and tunnels (used for iron, ore and coal).
- Areas subjected to attrition by track plant.

Limitations

- Not suitable for areas subjected to very high temperature: $\leq 400^{\circ}\text{C}$, (e.g. smelt furnace).
- Not suitable for areas where acids / alkalis and / or other chemicals attack iron / cement particles.

Typical properties

Properties listed are only for guidance and are not a guarantee of performance

E-modulus after 28 days	27.000 N/mm ²
Abrasion resistance Böhme	3.7 g/cm ³
Curing	Required
Bonding bridge	yes, if bonded to old concrete
Joint filling	recommended

Packaging

MASTERTOP[®] 230 is packaged in 25kg moisture-resistant bags.

Application procedure

Notes

- For heavy-duty traffic areas, concrete designed for at least 30 N/mm² should be used. Thickness of the slab and the type and amount of reinforcement in it are important design considerations.
- To minimise shrinkage cracking, consider the use of BASF water-reducing admixtures.
- Do not use calcium chloride in concrete over which toppings containing metallic aggregate and or colouring pigments will be applied.
- At temperatures over 29°C, at low humidity or when placing concrete without protection from wind or sun, erect sunshades or windbreaks and consider use of a curing compound from the MASTERKURE range.
- Do not use salt water or salt contaminated aggregate in concrete over which toppings containing metallic aggregate or colour will be applied.

I. Topping on hardened concrete

The old surface shall be carefully prepared before the application of MASTERTOP[®] 230:

- Square cut the edges to the right depth;
- Chip old concrete to the desired depth with a chipping hammer (with pointed chisel) until a good, solid and clean surface is obtained; with a surface amplitude of 5-6mm.
- All loose particles, as well as oil, grease, cement laitance, dust and other foreign matters shall be removed prior to the application of MASTERTOP[®] 230.
- The use of a bonding agent such as CONCREXIVE 1414 is necessary.

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II. Applying MASTERTOP[®] 230 mortar on GREEN CONCRETE:

- When the concrete is purpose laid to accept MASTERTOP[®] 230, the coarse substrate profile required for bonding purposes can be obtained by applying a surface retarder when the concrete is laid or water jetting the green but hardened concrete to expose the coarse aggregate.
- Mix MASTERTOP[®] 230 in accordance with the following instructions:
 - measure the necessary mixing water
 - put into mixing vessel
 - start mixer and add the dry-powder (MASTERTOP[®] 230)
 - continue mixing until a homogeneous and lumpfree mortar is obtained (total of 5 minutes).
- The mixed mortar is applied on the saturated but surface dry roughened concrete support.
- An even and uniform spread is recommended. Level the MASTERTOP[®] 230 mortar by screeding. As soon as the mortar has sufficiently dried, start the floating process.

Floating MASTERTOP[®] 230:

With wooden hand floats, float the mortar on concrete adjacent to walls, forms, columns and doorways as soon as possible. Other finishers using power trowels with float blades should float the mortar on overall areas as soon the float blades do not dig into the surface. Time the floating operation so it will not be necessary to sprinkle water on the surface.

Additional floating:

The surface may be further compacted by a third or fourth power floating if time and setting characteristics of the concrete and mortar permit.

First trowelling:

When the surface stiffens further and loses some of its sheen, it should be trowelled by power trowel.

Second trowelling:

When the surface "tightens" further it should be trowelled again with a power trowel. The blades may be raised slightly for this trowelling.

Note

During hot, dry or windy conditions, trowelling should be kept to the minimum necessary to obtain the desired finish. These conditions promote rapid evaporation, and any delay in getting the surface protected by curing can cause trouble.

Third trowelling (hand trowelling):

When only a little paste clings to the trowel blade, a third, raised trowelling may be given to the floor. Pinholes and trowel marks should be removed in this hand trowelling operation.

Curing:

Just as soon the surface will not be marred by the application, apply two coats of the special MASTERKURE[®] curing compound formulated by BASF.

Protection:

The area should be barricaded after the curing compound is applied. As soon as the curing compound has dried, adequately cover the floor surface to prevent staining, discoloration or physical damage which may be difficult to correct.

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Alert other trades to the need for special protection against rolling or sliding heavy loads across the surface, oil drippings from pipe threaders, spillage of paint, plaster and mortar, acid washing of interior masonry walls, etc. Ensure that the covering is not damaged during the progress of the job.

Cleaning:

Cleaning with water as soon as the equipment is not longer used and before the cementitious material starts to harden on the blades and trowels.

Sawing joints:

Saw the joints as soon as possible, without spalling the concrete.

Coverage

MASTERTOP[®] 230 is a heavy-duty, screedable surface topping, armoured with metallic aggregate.

Colour - natural.

25kg MASTERTOP[®] 230 mixed with 2.5 ltrs of water produces 8 ltrs mortar and will cover 0.5m² at 16 mm thickness.

Minimum application thickness = 15mm

Storage

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction. Shelf life is 18 months when stored in tightly closed original packages as above.

Safety precautions

- Do not apply over concrete containing calcium chloride or aggregate contaminated with salt or saltwater.
- Do not apply over concrete containing more than 3% entrained air.

This product contains cement which may cause irritation. Avoid contact with eyes and prolonged contact with skin. If contact occurs wash thoroughly with water and call a doctor. Keep product out of reach of children.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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