

MASTERTOP™ 512

Premixed hard wearing floor topping

Description

MASTERTOP 512 is a ready to use non-metallic and non-oxidising mineral aggregate and cementitious product which is applied as a topping on to the existing or new concrete slabs as a hard and durable wearing course. At 10 – 12mm the MASTERTOP 512 will provide permanent protection to the floor surface against various industrial chemicals, oils, greases and detergents.

Uses

MASTERTOP 512 is an ideal for use on new or existing concrete slabs where medium and heavy duty traffic is expected and where a non-dusting and durable floor is essential.

Typical application areas include:

- Workshops
- Power stations
- Garages
- Car parks
- Ware houses
- Loading bays
- Factories
- Shipyards
- Aircraft hangars
- Traffic decking (internal & external)
- Helicopter pads
- Car wash area

Advantages

- Premixed and requires only addition of clean water
- Can be applied onto new and existing concrete slabs and bays
- Easily finished by skilled masons or by power float
- A uniform density and hardness on the surface affords greater impact, abrasion and wear resistance than concrete.
- A non dusting surface which can be finished as smooth and non slip.
- Performance of floor is not affected by moisture and standing water.
- Non oxidising
- Suitable for internal and external use.

Chemical Properties:

MASTERTOP 512 is resistant to motor oils, mineral oils, organic acids, salt solutions-10%, sea water, soda solution-25%, when cured with the appropriate BASF curing membrane.

Typical Properties

Aspect	: Grey granular powder
W/P Ratio, by weight	: 0.10
Fresh wet density	: 2,500 Kg/m ³
Compressive strength (BS 6319, Part 2)	: 20 MPa at 1 day : 35 MPa at 7 days : 50 MPa at 28 days
Flexural Strength (BS6319, Part 3)	: 7 MPa at 28 days
Tensile Strength (BS 6319, Part 7)	: 3.5 MPa at 28 days
Abrasion resistance, H22 wheel (ASTM C501, 1000 cycle)	: 700 mg
Adhesive bond strength to concrete (ASTM D 4541)	: > 1.5 MPa (concrete failure)

Specification clause

The cementitious overlay shall be MASTERTOP 512, ready-to-use, non-metallic, mineral aggregates based powder. The product shall be high strength with compressive strength in excess of 20 MPa at 1 day and 50 MPa at 28 days; flexural strength exceeding 7 MPa at 28 days and tensile strength exceeding 3 MPa at 28 days. The product shall have adhesive bond strength in excess of 1.5 MPa when tested as per ASTM D4541.

Directions for use

Surface preparation

MASTERTOP 512 surface preparation is of prime importance. It is essential that thorough surface preparation is undertaken to ensure the system develops maximum properties.

For concrete surfaces, remove all greases, oil, dust, laitance, etc. Ensure substrate to receive the topping is sound, cutting back to sound surface (wherever necessary) and making good. Concrete surfaces should be prepared by captive blasting, grit blasting, high pressure water jetting or scabbling with pointed chisels.

Concrete cured with a conventional curing membrane should have the membrane film removed before application. The exception to this is when MASTERKURE 181 has been used.

Priming

Remove dust by means of oil free compressed air and ensure that the surface is dry. Prime with CONCRESLIVE 1414, ensuring total coverage of the surface.

Mixing

A forced action mixer or Creteangle mixer is recommended for mixing MASTERTOP 512. Pour contents of the bag into mixing bucket and blend for approximately 30 seconds.

Thereafter slowly add 2.3 – 2.5 litres of water per 25 kg bag and allow mixing for 3 mins. The mixed mortar should exhibit a plastic (low slump) consistency.

Application

Apply MASTERTOP 512 when the primer is tacky.

Evenly spread the material out over the primed surface. Level off with a wooden or aluminium straightedge using 10mm thick battens as thickness guides.

A straight edge should be used to systematically tamp and level the MASTERTOP 512. Using a wooden float, press firmly down and float material onto the primed surface ensuring that the materials is evenly spread and compacted.

Finishing should be carried out using a steel trowel. If a power float is to be used this should be used when the surface is firm enough to take the weight of foot traffic.

Curing

Curing should be carried out immediately after the final trowelling operation has been completed.

This can be done by either covering with polythene or by the application of curing compound the use of a curing membrane from the MASTERKURE range.

For further advice on the correct selection of curing compounds will be provided by BASF technical services department as these may differ depending on the type of subsequent treatment to be applied. Protect all surfaces from traffic until the surface has completely hardened (light traffic 24 hours; heavy traffic 72 – 96 hours).

Coverage

25 kg MASTERTOP 512 mixed with 2.3 to 2.5 litres of water shall produce 11 litres of mortar and shall cover 1m² at an average 10 mm thickness.

Packaging

MASTERTOP 512 is supplied in 25 kg moisture-resistance bag.

Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the

product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advices consult your local BASF representative.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

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

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