

MASTERTOP[®] 300

Pre-Mixed Mineral Dry-Shake Surface Hardener for Industrial, Commercial or Residential Concrete Floors

Description of Product

MASTERTOP[®] 300 is a unique pre-mixed blend of specially blended non-oxidising mineral aggregates, Portland cement and selected additives and workability aids.

Applied by the 'dry shake' method onto concrete floors MASTERTOP[®] 300 provides increased abrasion resistance measured as being **up to 6 times** that of untreated plain cured concrete. Use of mineral slag derived aggregates which have been processed and graded gives a hard wearing non oxidising surface which increases impact resistance and gives a durable hard wearing surface finish that is very suitable for industrial usage.

The dry shake method requires the specially blended dry powder to be evenly spread at the desired application rate onto the surface of freshly laid concrete. The special hydraulic cements and workability aids absorb moisture from the concrete helped by the power floating process. Therefore, the material hardens at a very low water cement ratio, monolithically with the base concrete to create an integral, extremely hard wearing surface.

MASTERTOP[®] 300 is available in several colours (see MASTERTOP[®] colour chart) including the highly energy efficient light reflective version (2-3 times increased light reflectance than standard concrete).

Fields of Application

- Storage areas and traffic aiseways in the steel industry.
- Foundries and furnace areas.
- Heavy engineering workshops and machine tool shops.
- Storage areas subject to heavy loads.
- Paper mills.
- Printing shops.
- Assembly plants in the Automotive Industry.
- Aircraft hangars and workshops.
- Tracked vehicle manufacture and traffic areas.
- Agricultural machinery manufacture.

Features and Benefits

- Mineral slag derived reinforced surface provides enhanced impact and point load resistance.
- Non oxidising and rust free.
- High strength, provides excellent abrasion resistance against all types of wheeled and tracked vehicles.
- Up to four times service life expectancy of plain concrete floors.

- High density surface provides low porosity, very low dusting, relatively easily cleaned surface.
- Coloured versions provide more attractive work environments.
- Highly reflective version reduces energy and lighting requirements.
- Increased application rate provides improved durability of joint arises.
- Economical in use.
- Pre-mixed, ready to use material provides Quality Assured consistent performance.
- 1 component, ease of application.

Technical Data/Typical Properties

Compressive strength after 7 days	>40 N/mm ² (Mpa)	
after 28 days	>50 N/mm ² (MPa)	
Abrasion Resistance ASTM C944	Single Load	Double Load 196N
Weight loss in grammes	6 minutes	6 minutes
Control (35 Newton concrete)	2.8G	9.9G
MASTERTOP [®] 300 @ 7Kg/m ² coverage	0.5G	2.7G
Curing	yes	

Application Procedure

Application

MASTERTOP[®] 300 is essentially, a simple product in use, i.e. the dry powder blend being spread mechanically or by hand onto freshly laid concrete floors followed by working the products into the surface by a power float. However, it is recommended that specialist concrete flooring contractors be employed to ensure the design finish.

Detailed application procedures can be provided by BASF on request, however, the following watchpoints with respect to the quality of the base concrete slab should be noted:-

- Minimum 75mm slump.
- Well designed mix with minimum bleed water.
- Design strength at least 30N/mm².
- No more than 3% entrained air.
- Do not use chloride containing admixtures.
- Do not use salt water or salt contaminated aggregate.



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- Take particular care at ambient temperatures greater than 25°C.

In addition the following should be noted with respect to the application of MASTERTOP® 300 .

- The amount of MASTERTOP® 300 required depends upon the expected traffic and is to be specified by the Engineer
Light to Moderate Duty 5 - 6 kg/m²
Moderate to Heavy Duty 6 - 7.5 kg/m²
Heavy Duty to Concentrated Traffic 7.5 - 8 kg/m²
- For coloured floors a minimum of 7.5 kg/m² is recommended.
- MASTERTOP® 300 is normally applied in two layers, two thirds and then one third of the required application rate. The first application is thoroughly worked into the surface before the second is commenced.
- Pay particular attention to details, around columns, doorways, expansion joints, etc. For additional protection apply heavier application rates along joint edges.
- Do not sprinkle additional water onto the surface of the floor during finishing.
- Do not hard burnish coloured floors.
- Saw cut crack control joints as soon as possible.
- MASTERTOP® 300 floors should be cured using MASTERKURE® 181 at 5m²/L as soon as the surface is not marred by the application.
- Do not water cure MASTERTOP® 300.
- Protect the floor from other trades during the construction phase.
- In areas of heavy oil contamination MASTERTOP® 300 will be more easily maintained and cleaned if sealed with MASTERKURE® 181 on a planned ongoing basis dependent on service conditions.

Packaging

MASTERTOP® 300 is supplied in 25 kg moisture resistant sacks.

Storage

Store in cool, dry warehouse conditions.

Shelf Life

At least 12 months in unopened sacks when stored according to manufacturer's instructions.

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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

DISCLAIMER

"BASF" (the Company) endeavour to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.