



The Chemical Company

MASTERTOP® 506

For Industrial Floors, Cementitious-Acrylic Based Self Levelling Floor Coating

Description of Product

MASTERTOP® 506, is a cementitious-acrylic based, two component, applied with 4 -8 mm thickness, smooth surfaced, with high abrasion resistance, industrial type, self levelling floor coating.

Fields of Application

- In factory and warehouse floors,
- Car Parks, garages and parking ways,
- In balconies and terraces,
- In loading bays,
- In worn and torn industrial floors used as floor coating.

Features and Benefits

- Smooth surface.
- Applied quickly and easily, economic.
- High abrasion resistance & compressive strength.
- Non-dusting, solid and has a long life.
- Provides perfect adherence to the floor
- Not effected from mechanical impact and heat changes.
- In compliance with ASTM C672-84 (together with anti icing salt) resistant to freeze-thaw cycle.

Application Procedure

Preparation of Substrate

MASTERTOP® 506 is provided as pre-mixed ready to use sets depending on the mixing rate. The concrete quality of the concrete surface on which **MASTERTOP® 506** is applied should be type C20 or minimum 350 dose and the slab should be at least 3 weeks old. The tensile strength of the surface concrete should be minimum 1,5 N/mm², and the floor temperature should be minimum +10°C. The surface should be well saturated with water and there should be no free water on the surface.

The surface should be solid, sound, free of dust and clean. Any oil, grease, rust, and wax residues should be thoroughly removed from the surface. Any laitance on the surface should be removed by sand or shot blasting or diamond grinding; outcome dust layer should be vacuumed off with industrial vacuum cleaners.

Technical Data

Material Structure	MASTERTOP® 506 Compt. A MASTERTOP® 506 Compt. B	
	Contains mineral fillers, silica fume & special cement	
	Acrylic Copolymer Dispersions	
Colour	Gray	KR
Density of Mix	2,20 kg/litre	
Compr. Strength(TS EN 196)		
1 day	3 N/mm ²	
7 days	20 N/mm ²	
28 days	30 N/mm ²	
Flexural Strength (28 days)	11 N/mm ²	
Tensile Strength (28 days)	2,0 N/mm ²	
Initial Curing Time	5 hours	
Full Curing Time	28 days	

The above values are given for +23°C de and 50 % relative humidity. Higher temperatures will shorten the times and lower temperatures will prolong.



MASTERTOP® 506

Uneven Surface

Cracks wider than 1 mm, recesses deeper than 8 mm should be repaired with suitable **Emaco®** repair mortar. Repair of thin shrinkage cracks may be ignored.

Joints

All existing joints should be brought up to **MASTERTOP® 506** levels. If **MASTERTOP® 506** coating is to be bonded to another coating, a 3 mm deep groove should be opened at the meeting line to seal the coating. If the coating is bonded to another coating other than concrete (ceramic, epoxy etc), a movement joint should be created and this joint should be filled with **Sonolastic® SL1**, **Sonomeric® 1**, or **Masterflex®** series joint sealant.

Saturation of Substrate with Water

At higher temperatures, in order to prevent fast water loss from the application surface, the surface should be saturated with water 1 day prior to the application. Make sure that there is no free water on the surface before starting the application.

Mixing

MASTERTOP® 506 B Component is poured into a clean mixing bucket. **MASTERTOP® 506** A Component is added gradually and two components are mixed with a 400 -600 rpm mixing equipment for 3 -5 minutes until a homogenous, lump free mixture is achieved. The mixture is allowed to rest 3 -5 minutes and then after mixing for 30 seconds the product is ready to use.

Mixing Ratios

MASTERTOP® 506	Compt. A	Compt. B
Mixture of Mix	25 kg	6,825 kg
Density of Mix	2,20 kg/litre	

Application Procedure

Priming

For a perfect adherence, **MASTERTOP® 506** mixture should be applied on the surface with a stiff brush by letting it absorb.

Coating

The prepared mixture should be applied on the surface by spreading with an adjustable trowel before the primer dries. After the application any entrapped air should be released with a spike roller.

Note: To achieve a seamless and smooth coating, an uninterrupted application should be made. Therefore, depending on the size of the application area, more than one mixing bucket should be used to provide an uninterrupted application and the prepared mixture should be poured successively on the surface for an effective coverage.

Curing

Under normal circumstances, **MASTERTOP® 506**, can be opened to foot traffic after 48 hours and to vehicle traffic after 72 hours. If there is a heavy traffic (steel wheeled trolleys etc) 7 days should pass before opening the coating to full load. In hot, dry and windy weathers, (when the temperature is over +25°C and relative humidity is below 55 %) as soon as **MASTERTOP® 506** sets, dry sand should be sprinkled over the surface. This will prevent the risk of uncontrolled fast curing. Sprinkled sand should be cleaned off the surface after 24 hours. When the temperature is below +10°C and relative humidity is over 90% the curing time of **MASTERTOP® 506** is prolonged. In such cases, the surface should be opened to traffic at a later time.

MASTERTOP® 506

Coverage

MASTERTOP® 506 : 2, 20 kg/m² mixture for 1 mm thickness

Watchpoints

- If the ambient and surface temperatures are less than +5°C and more than +25°C, suitable temperatures should be waited for the application. Furthermore, it shouldn't be applied at extremely hot, wet or windy weathers.
- Materials to be used at suitable temperatures should be brought and stored in the application area 1-2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold weathers, a heater should be used to increase ambient and surface temperature; and in order to increase the workability of the product the packages should be conditioned at +20-+25°C to become ready to use.
- **MASTERTOP® 506** should not be applied onto the frozen surfaces, when the temperature is below +10°C and it is expected to drop below +10°C within 8 hours following the application.
- Applications should be carried out by suitably qualified people.
- Working and reaction times of cementitious systems are affected by ambient and surface temperature and relative humidity in the air. Hydration slows in lower temperatures and this increases pot life and working time. Higher temperatures increase hydration and the above mentioned times decreases accordingly. In order for the material to complete setting, ambient and surface temperature should not drop below the allowed minimum temperature.
- **MASTERTOP® 506** is an industrial coating. Depending on the properties of the concrete on which it is applied, **MASTERTOP® 506** may show colour differences on the surface. This does not affect the mechanical characteristics of the coating.

Cleaning of Tools

Tools and equipment should be cleaned with water after the application. Hardened **MASTERTOP® 506** can only be cleaned from the surface by mechanical means.

Packaging

MASTERTOP® 506 Comp A : 25 kg bag
MASTERTOP® 506 Comp B : 6,825 kg can

Storage

It should be stored in its original package, in a cool and dry place protected from frost. For short term storage, maximum 3 palettes should be placed on top of each other and the shipment should be made on a first come first go basis. Palettes should not be placed on top of each other during long term storage.

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. **MASTERTOP® 506** B component freezes at temperatures below 0°C. Opened packages should be stored under suitable storage conditions and used within 1 week.

Health and Safety Precautions

During application, protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used.. Due to the irritation effect of the uncured materials, mixture should not be in contact with skin and eyes, in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or drink should be brought into the application area. It should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

Disclaimer

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