



The Chemical Company

# MASTERTOP® 530 LE THOROFLOW LE

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

### Description of Product

**MASTERTOP® 530 LE**, is a cementitious-acrylic based, two component, applied with 4 -8 mm thickness, smooth surfaced, with high abrasion resistance, industrial type, self levelling steel fibre reinforced 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 surfaced
- Applicable quick and easily, economic.
- High abrasion and compressive strength.
- Non-dusting, solid and has a long life.

- Provides perfect adherence to the surface.
- Not effected from mechanical impact and heat changes.
- Pursuant to ASTM C672-84 (together with anti icing salt) resistant to freeze-thaw cycle.

### Application Procedure

#### Preparation of Substrate

**MASTERTOP® 530 LE** is provided as pre-mixed ready to use sets depending on the mixing rate. The concrete quality of the concrete surface on which **MASTERTOP® 530 LE** 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/mm<sup>2</sup>, 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.

### Technical Data

Material Structure <b>MASTERTOP® 530 LE</b>	Contains mineral fillers, silica fume, steel fibre and special cement	
Component A		
<b>MASTERTOP® 530 LE</b> Comp. B	Acrylic copolymer dispersion	
Colour	Gray	
Density of Mix	1,93 kg/litre	
Compressive Strength (7 days)	13,0 N/mm <sup>2</sup>	
(28 days)	21,5 N/mm <sup>2</sup>	
Flexural Strength (28 days)	8,8 N/mm <sup>2</sup>	
Tensile Strength (28 days)	2,0 N/mm <sup>2</sup>	
Abrasion Resistance DIN 53754 (Taber) (1 kg 1000 rev)		
CS 17 disk (weight loss) H22 disk (weight loss)	245 mg 301 mg	
Initial Curing Time	30 minutes	
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.



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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.

### Uneven Surfaces

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® 530 LE** level. If **MASTERTOP® 530 LE** 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® 530 LE** B Component is poured into a clean mixing bucket. **MASTERTOP® 530 LE** 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® 530 LE	Comp. A	Comp. B
Mixture Amount	25 kg	8 kg
Density of Mix	1,93 kg/litre	

### Application Procedure

#### Priming

For a perfect adherence, **MASTERTOP® 530 LE** 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® 530 LE**, 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® 530 LE** 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 the relative humidity is over 90% the curing time of **MASTERTOP® 530 LE** is prolonged. In such cases, the surface should be opened to traffic at a later time.

#### Coverage

1,93 kg/m<sup>2</sup> in order to obtain 1 mm of 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

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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, 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® 530 LE** 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® 530 LE** is an industrial coating. Depending on the characteristics of the concrete on which it is applied, **MASTERTOP® 530 LE** 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® 530 LE** can only be cleaned from the surface by mechanical means.

### Packaging

33 kg set  
Component A: 25 kg polyethylene reinforced kraft bag  
Component B: 8 kg plastic 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® 530 LE** 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 come into 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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