

# Mapecfloor FC 200 ME

## High build epoxy resin floor coating

### WHERE TO USE

**Mapecfloor FC 200 ME** is a two-component epoxy formulate with high solid content used to create multi-layered resin coatings with an attractive smooth or non-slip surface.

### SOME APPLICATION EXAMPLES

- Chemical and pharmaceutical industries
- Foodstuffs industry
- Car Parks
- Aseptic rooms
- Warehouses
- Shopping centers
- Coating floors in nuclear plants

### TECHNICAL CHARACTERISTICS

**Mapecfloor FC 200 ME** is an epoxy floor coating based on solvent free technology. **Mapecfloor FC 200 ME** is introduced in colored dual pack system, base and hardener. It is suitable for chemical protection of industrial flooring and reinforced concrete slabs.

**Mapecfloor FC 200 ME** is used to create seamless coatings with an attractive finish.

**Mapecfloor FC 200 ME** is strong, has good resistance to chemical products, abrasion and used as multi-layered systems.

### RECOMMENDATIONS

- Do not dilute **Mapecfloor FC 200 ME** with solvent or water.
- Do not mix partial quantities of the components to avoid mixing errors; the product may not harden correctly.
- Do not expose the mixed product to sources of heat.
- Coatings made from **Mapecfloor FC 200 ME** may change colour or fade if exposed to sunlight but this has no effect on its performance characteristics.
- The coating may also change colour if it comes into contact with aggressive chemicals. A change in colour, however, does not mean that it has been damaged by the chemical.
- Remove aggressive chemicals as soon as possible after they come into contact with **Mapecfloor FC 200 ME**.
- Protect the applied coating from water for at least 24 hours after application.
- Do not apply the product directly on substrates with moisture content higher than 4% and/or with capillary rising damp.
- The air relative humidity should not be greater than 75%.

## APPLICATION PROCEDURE

### Preparing the substrate

The surface of concrete floors must be dry, clean, sound and have no crumbling or detached portions.

Do not apply **Mapefloor FC 200 ME** on dusty substrates.

Do not apply **Mapefloor FC 200 ME** on substrates with oil or grease stains or stains in general.

The compressive strength of the substrate concrete must be at least 25 N/mm<sup>2</sup> and its tensile strength must be at least 1.5 N/mm<sup>2</sup>.

The strength of the substrate must also be suitable for its final use and the types of load to which it will be subjected.

The surface of the floor must be prepared with a suitable mechanical process (e.g. shot-blasting or grinding with a diamond disk) to remove all traces of dirt and cement laitance and crumbling or detached portions, and to make the surface slightly rough and absorbent. Before applying the coating, remove dust from the surface with a vacuum cleaner.

Any cracks must be repaired by filling them with **Eporip**, while any deteriorated areas of the concrete must be repaired with **Adesilex PG2 TG**.

### PRIMING

#### Application of the primer

Priming is not normally required provided the substrate is sound and good quality non-pours concrete, if otherwise, it should be primed with **Primer SN**.

Apply an even coat of neat **Primer SN** on the substrate after it has been prepared as specified with a straight trowel or roller.

#### Preparation of the product

Mix component A thoroughly and add the contents of component B in a clean container.

Power mix at low speed to prevent entraining air into the mix (300-400 revs/min) for at least 2 minutes until the mix is completely blended and the color is uniform. Scrape the sides of the mixing container and remix.

Do not mix the product for too long to prevent entraining too much air into the mix. Apply the mix within the pot life indicated in the table (refers to a temperature of +25°C). Higher surrounding temperatures will reduce the pot life of the mix, while lower temperatures will increase its pot life.

#### Application of the product

**Mapefloor FC 200 ME** may be used for smooth or non-slip coatings.

### 1. Multi-layered smooth coating

- Prepare the substrate as specified (we recommend shot-blasting or rough grinding with a diamond disk) and remove dust with a vacuum cleaner.
- Apply **Primer SN** at a rate of 0.2 kg/m<sup>2</sup> (if required).
- When the primer has hardened apply the first coat of **Mapefloor FC 200 ME** by straight trowel or roller.
- Apply finishing coat of **Mapefloor FC 200 ME** with a straight steel trowel down to a feather edge and then backroll crosswise with a short-piled roller or apply the mix directly on the surface with a medium-piled roller.

### 2. Multi-layered non-slip coating

- Prepare the substrate as specified (we recommend shot-blasting or rough grinding with a diamond disk) and remove dust with a vacuum cleaner.
- Apply **Primer SN** at a rate of 0.2 kg/m<sup>2</sup> (if required).
- When the primer has hardened pour **Mapefloor FC 200 ME** onto the floor and spread it out evenly with a straight trowel or roller.
- Fully broadcast with **Quartz 0.5**. If a higher degree of non-slip finish is required, sand with a larger particle size may be used. In such cases the consumption rate of the next coat will be higher.
- When the first coat of **Mapefloor FC 200 ME** has hardened remove any excess sand and remove the last grains of sand with an industrial-grade vacuum cleaner.
- Apply the finishing coat of **Mapefloor FC 200 ME** with a straight steel trowel down to a feather edge then backroll crosswise with a short-piled roller, or apply the mix directly on the surface with a medium-piled roller. Make sure the roller strokes criss-cross to get a better finish.

## CONSUMPTION

### 1. Multi-layered smooth coating.

Primer: (if required)

**Primer SN** (A+B): 0.15-0.2 kg/m<sup>2</sup>

(depending on the substrate condition).

1<sup>st</sup> coat:

**Mapefloor FC 200 ME** (A+B): 0.30 kg/m<sup>2</sup>

Finishing coat:

**Mapefloor FC 200 ME** (A+B): 0.30 kg/m<sup>2</sup>

### 2. Multi-layered non-slip coating.

Primer: (if required)

**Primer SN** (A+B): 0.15-0.2 kg/m<sup>2</sup>

(depending on the substrate condition).

1<sup>st</sup> coat:

**Mapefloor FC 200 ME** (A+B): 0.35 kg/m<sup>2</sup>.

Broadcast with **Quartz 0.5** at 0.5-1.0 kg/m<sup>2</sup>.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

	Component A	Component B
<b>Appearance:</b>	liquid	liquid
<b>Colour:</b>	RAL 3016 RAL 5010 RAL 5015 RAL 6011 RAL 6021 RAL 6032 RAL 7035 RAL 7037 RAL 7040 RAL 7046	clear, light yellow
<b>Mix density :</b>	1.57 kg/liter	
<b>Viscosity at 25°C (mPa.s):</b>	5400	
<b>Solid content:</b>	100%	

### APPLICATION DATA (at +23°C and 50% R.H.)

<b>Mixing ratio (by volume):</b>	component A : component B = 3.6:1
<b>Pot life time:</b>	60 minutes
<b>Over coating time:</b>	20 hours
<b>Open to foot traffic:</b>	24 hours
<b>Open to vehicular traffic:</b>	48 hours

### FINAL PERFORMANCES (7 days at +23°C and 50% R.H.)

<b>Tensile strength (ASTM D 638 - 99) (N/mm<sup>2</sup>):</b>	>22
<b>Compressive strength (ASTM C 579 - 01/B) (N/mm<sup>2</sup>):</b>	>80
<b>Flexural strength (ASTM D 790 - 99) (N/mm<sup>2</sup>):</b>	>40
<b>Bond strength (ASTM D4541) (N/mm<sup>2</sup>):</b>	>1.5 (concrete failure)
<b>Heat resistance:</b>	-5°C to +65°C

#### Finishing coat:

**Mapefloor FC 200 ME** (A+B): 0.35 kg/m<sup>2</sup>.

The consumption rates above are theoretically calculated using **Quartz 0.5** for the dry shake finish, and are influenced by the condition of the surface to be treated, absorbency, roughness, the actual conditions on site, etc.

#### **CLEANING TOOLS**

Tools used to prepare and apply **Mapefloor**

**FC 200 ME** with ethanol or thinners immediately after use. Once hardened, the product may only be removed using mechanical means.

#### **PACKAGING**

25.5 kg kits (component A = 22 kg; component B = 3.5 kg) in containers.

#### **STORAGE**

The product must be stored in its original packaging in a dry place at a temperature of

between +15°C and +35°C. Maximum 24 months.

## **SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION**

Mapefloor FC 200 ME component A is irritant for the eyes and skin, both components A and B may cause sensitisation if they come into contact with the skin of those predisposed. **Mapefloor FC 200 ME** component B is corrosive and may cause burns and damages to eyes. The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds. During use, wear protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention.

When the material reacts it generates a high amount of heat. We recommend applying the product as soon as possible after mixing components A and B and to never leave the container unattended until it is completely empty.

**Mapefloor FC 200 ME** components A and B are also hazardous for aquatic life. Do not dispose of these products in the environment.

For further and complete information about the safe use of our product please refer to our latest version of the Safety Data sheet.

## **IMPORTANT NOTES**

*Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that installers satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification. The installer should ensure that our latest product data and safety information sheets have been consulted prior to use.*

**Please refer to the current version of the Technical Data Sheet, available from our web site [www.mapei.com](http://www.mapei.com)**

## **LEGAL NOTICE**

***The contents of this Technical Data Sheet ("TDS") may be copied into other project-related documents, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website [www.mapei.com](http://www.mapei.com).***

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**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**