MAPEFLOOR FC 200 ME

High build epoxy resin floor coating

WHERE TO USE

Mapefloor FC 200 ME is a two-component epoxy formulate with high solid content used to create multi-layered resin coatings with a non-slip, or roll coat/ structured finish.

Some application examples

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

TECHNICAL CHARACTERISTICS

Mapefloor FC 200 ME is an epoxy floor coating based on solvent-free technology. **Mapefloor FC 200 ME** is introduced in a coloured dual-pack system, base, and hardener. It is suitable for the chemical protection of industrial flooring and reinforced concrete slabs.
Mapefloor FC 200 ME is used to create seamless, multi-layered coatings.
Mapefloor FC 200 ME is a strong, multi-layered system, with good abrasion & chemical resistance.

RECOMMENDATIONS

- Prior to any product delivery starting on site, it is good practice to apply a representative sample, under the correct lighting, for approval of the coating colour, surface texture, finish, gloss or matt level, etc. and have that as the representative control sample for subsequent applications
- Ensure that the roller brushes are de-haired by initially applying the **Mapefloor FC 200 ME** over a trial area prior to commencing the application
- The surface texture of **Mapefloor FC 200 ME** can be affected by various factors including but not limited to substrate surface temperature, humidity, type of roller used, etc.
- Do not dilute **Mapefloor 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 **Mapefloor 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 alter the product's performance and characteristics
- Remove aggressive chemicals as soon as possible after they come in contact with **Mapefloor 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's relative humidity should not be greater than 75%
- If required **Mapefloor FC 200 ME** can be overcoated with **Mapefloor Finish 450 ME**

- RAL colours indicated on the product should be taken as a guide to the product colour only. In the unlikely event, the product colour does not match the RAL colour indicated, Mapei will not be held responsible. All colours and textures should be approved by the client before the final application on site

APPLICATION PROCEDURE

Preparation of 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/mm² and its tensile strength must be at least 1.5 N/mm².
The strength of the substrate must also be suitable for its final use and the types of load it will be subjected to.
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.**

Application of the primer

Priming is not normally required provided the substrate is sound and good quality non-porous 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

First mix component A thoroughly and then add the contents of component B to it.
Power mix at low speed to prevent entraining air into the mix (300-400 rpm) 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 can be used as a non-slip, or roll coat/structured finish.

1. Multi-layered roll coat/ structured finish coating

- Prepare the substrate as specified (we recommend shot-blasting or rough grinding with a diamond disk) and remove dust with a vacuum cleaner
- Use **Adesilex PG2 TG** or **Adesilex PG4** to fill in pinholes, blowholes and surface blemishes
- Apply **Primer SN** (if required)
- When the primer has hardened apply the first coat of **Mapefloor FC 200 ME** by squeegee or roller
- Apply the finishing coat of **Mapefloor FC 200 ME** with a squeegee 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** (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 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

Cleaning

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.

CONSUMPTION

1. Multi-layered, roll coat/ structured finish coating

Primer: (if required) **Primer SN** (A+B): 0.15-0.25 kg/m² (depending on the substrate condition).
1st coat: **Mapefloor FC 200 ME (A+B)**: 0.32 kg/m²
Finishing coat: **Mapefloor FC 200 ME** (A+B): 0.32 kg/m²

2. Multi-layered non-slip coating
Primer: (if required) **Primer SN** (A+B): 0.15-0.25 kg/m² (depending on the substrate condition).
1st coat: **Mapefloor FC 200 ME** (A+B): 0.35-0.40 kg/m². Broadcast with Quartz 0.5 at 0.5-1.0 kg/m².
Finishing coat: **Mapefloor FC 200 ME** (A+B): 0.35-0.40 kg/m².

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, shape and quality of quartz, absorbency, roughness, the actual conditions on site, etc.

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 +5°C and +35°C. Maximum 24 months.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instruction on the safe use of our products can be found on the latest version of the Safety Data Sheet available on our website www.mapei.ae. When the product reacts, it generates considerable heat. After mixing components A and B we recommend applying the product as soon as possible and to never leave the container upgraded until it is completely empty.

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION		
	Component A	**Component B**
Appearance:	viscous liquid	liquid
Colour:	RAL colours	clear, light yellow
Density (g/cm³):	1.70 - 1.75	0.990 - 1.060
Viscocity at +25°C (Pa.s):	12 - 17 (#6, rpm20)	0.200 - 0.300 (#2; rpm 50)

APPLICATION DATA (at +23°C and 50% R.H.)	
Mixing Ratio:	Component A: Component B = 22: 3.5
Mix Density (A+B) (g/cm³):	1.50
Mix viscosity (A+B)(Pa.s):	10-15 (rv5; rpm 20)
Pot life:	35-45 min
Overcoating time:	20 h
Set to foot traffic:	24 h
Set to vehicular traffic:	48 h
Application temperature range:	from +5°C to +35°C

FINAL PERFORMANCES (7 days at +23°C and 50% R.H.)	
Tensile strength (ASTM D 638 - 99) (N/mm²):	12
Compressive strength (EN 196-1) (N/mm²):	40
Flexural strength (EN 196-1) (N/mm²):	35
Bond strength (ASTM D4541) (N/mm²):	≥ 1.5
Shore D hardness (ASTM D 2240):	60-80
Taber test (CS17; 1000g; 1000 cycles) (ASTM D 4060-10):	95

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 website www.mapei.ae.

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.ae.

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.com.