



MAPEI Mapefloor I 300 SL ME

Three-component multi-purpose coloured epoxy formulate for industrial floor coatings from 2 to 4 mm thick



WHERE TO US

Mapefloor I 300 SL ME is a three-component epoxy formulate with high solid content used to create self-levelling resin coatings with an attractive smooth surface.

SOME APPLICATION EXAMPLES

- Coating floors in the chemical and pharmaceutical industries.
- Coating floors in the foodstuffs industry.
- Coating floors in laboratories, sterile rooms and hospitals.
- Coating floors in aseptic rooms.
- Coating floors in mechanised warehouses.
- Coating floors in shopping centres.
- Coating floors in nuclear plants.

TECHNICAL CHARACTERISTICS

Mapefloor I 300 SL ME is a three-component, nonylphenolfree, fillerized epoxy resin-based formulate with high solid content according to a formula developed in the MAPEI R&D laboratories.

Mapefloor I 300 SL ME is versatile and may be applied in layers from 2 to 4 mm thick.

Mapefloor I 300 SL ME is used to create seamless coatings with an attractive finish.

Mapefloor I 300 SL ME has good resistance to chemical products and abrasion and may be used in both selflevelling and multi-layered systems.

RECOMMENDATIONS

- Do not apply **Mapefloor I 300 SL ME** on damp substrates or on substrates with capillary rising damp (please contact our Technical Services Department).
- Do not dilute **Mapefloor I 300 SL ME** with solvent or water.
- Do not apply **Mapefloor I 300 SL ME** on dusty or crumbling substrates.
- Do not apply **Mapefloor I 300 SL ME** on substrates with oil or grease stains or stains in general.
- Do not apply **Mapefloor I 300 SL ME** on substrates that have not been treated with **Primer SN** or that have not been prepared as specified.
- 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 I 300 SL 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 **Mapefloor I 300 SL ME**.
- Use suitable specific cleaning equipment and detergent to clean the product, depending on the type of dirt or stain to be removed.
- Protect the product 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 (check by testing with a sheet of polythene).

- The temperature of the substrate must be at least 3°C higher than the dew-point temperature.

APPLICATION PROCEDURE

Preparation of the substrate

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

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 to which it will be subjected.

The level of moisture in the substrate must be a maximum of 4% and there must be no capillary rising damp (check by testing it with a sheet of polythene).

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** or **Mapefloor EP19 ME** or a cementitious mortar from the Mapegrout range.

Before applying **Mapefloor I 300 SL ME**, remove traces of dust from the surface with a vacuum cleaner.

Application of Primer SN

Apply an even coat of neat **Primer SN** or mixed with **Quartz 0.25** on the substrate after it has been prepared as specified with a straight trowel or rake, then fully broadcast with **Quartz 0.25** while it is still wet to ensure the next coat of resin adheres perfectly.

Preparation of the product

The three components which make up **Mapefloor I 300 SL ME** must be blended together just before application. Mix component A thoroughly and add the contents of component B. Mix with a low speed electric mixer to prevent entraining air into the mix (300-400 revs/min) for at least 2 minutes until the mix is completely blended. Add part C, sand and mix until a homogeneous mixture is achieved.

Pour the mix into a clean container and briefly mix again.

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 +20°C). Higher surrounding temperatures will reduce the pot life of the mix, while lower temperatures will increase its pot life.

Application of the product

- Prepare the substrate as specified (we recommend shot-blasting or rough grinding with a diamond disk) and remove dust with a vacuum cleaner.
- Apply a kit of **Primer SN (A+B)** mixed by straight trowel with 20% by weight of **Quartz 0.5** then lightly broadcast with the same sand at a rate of 0.7-1.0 kg/m². Make sure there are no open pores in the surface of the substrate, otherwise air bubbles could escape and form pinholes in the self-levelling finishing coat.
- Pour **Mapefloor I 300 SL ME** onto the floor and spread it out evenly with a notched trowel with "V" shaped teeth.
- Back roll intensively over the laid product with a spiked roller while the product is still wet to even out the thickness of the coat and to remove any air entrapped in the product.

The recommended total consumption of **Mapefloor I 300 SL ME** must be at least 2.5-3.5 kg/m².

N.B.: *the examples above are for indication purposes only. The amount of sand added to **Primer SN** may vary according to the surrounding temperature. The amount required may be less at low temperatures and more at high temperatures.*

Cleaning tools

Cleaning tools used to prepare and apply **Mapefloor I 300 SL ME** with ethanol or thinners immediately after use. Once hardened, the product may only be removed using mechanical means.

CONSUMPTION

Smooth self-levelling average thickness 2 mm

Primers SN (A+B) : 0.3 kg/m²

Mapefloor I300 SL ME : 3.7 kg/m²

The consumption rates above are theoretical calculated 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.

YIELD

47 kg unites will yield 25.4 liters of mixed materials.

PACKAGING

47 kg kits (component A = 17 kg; component B = 5 kg; component C = 25 kg).

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

Mapefloor I 300 SL ME component A is irritant for the eyes and skin, both components A and B cause sensitisation if they come into contact with the skin of those

TECHNICAL DATA (typical values)			
PRODUCT IDENTITY			
	component A	component B	component C
Consistency:	liquid	liquid	powder
Colour:	neutral	straw yellow	sand
Density (g/cm ³):	1.5	1.0	-
APPLICATION DATA (at +23°C and 50% R.H.)			
Colour of mix:	neutral, RAL 5010, RAL 5015, RAL 6011, RAL 6032, RAL 7035, RAL 7040, RAL 7046		
Consistency of mix:	fluid		
Density of mix (kg/m ³):	1.85		
Viscosity of mix at +23°C (mPa·s):	5000		
Workability time at +20°C:	35 mins.		
Application temperature:	from +8°C to +35°C (refers to the surroundings, material and substrate)		
Waiting time between coats at +23°C and 50% R.H.:			
- on Primer SN with fully broadcast of quartz sand:	min. 12 h	no maximum limit	
- on Primer SN with light broadcast of quartz sand:	min. 18 h	max. 24 h *surfaces must be dry with no dust	
Hardening time at +23°C and 50% R.H.:			
- dust dry:	2-4 hours		
- set to foot traffic:	approx. 24 hours		
- full hardening time:	approx. 7 days		
The times above are for indication purposes only and are influenced by actual site conditions (e.g. temperature of the surroundings and substrate, relative humidity of the surrounding air, etc.)			
FINAL PERFORMANCE			
Compressive strength (ASTM C579-01) (N/mm ²) :	50		
Flexural strength (BS6319-3) (N/mm ²) :	28		
Tensile strength (BS6319-7) (N/mm ²) :	16		
Abrasion resistance - Taber abrasion test (ASTM D4060-1,000 g / 1,000 rev / CS17) (g): - after 7 days:	58		

predisposed. **Mapefloor I 300 SL 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. **Mapefloor I 300 SL ME** component C is not considered as dangerous according to the current regulation regarding the classification of mixtures. 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 I 300 SL 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 website 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.

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