



Mapecfloor I 350 SL



Two-component, multi-purpose, neutral-coloured epoxy formulate for coating industrial floors in compliance with the requirements of UNI CEI 11170 guidelines on fire protection for trains and railway components

WHERE TO USE

Mapecfloor I 350 SL is a two-component fillerized epoxy formulate. It is "class 1" fire resistant, Euroclass "B_{fl} - s1" and is suitable for self-levelling and multi-layered resin flooring with an attractive smooth or non-slip finish.

Mapecfloor I 350 SL meets the requirements of UNI CEI 11170 – railway vehicles – Guidelines for fire protection of railway vehicles and vehicles with guiding rails.

Some application examples

- Coating floors in the chemical and pharmaceutical industries.
- Coating floors in the foodstuffs industry.
- Coating laboratory floors in sterile rooms and hospitals.
- Coating floors in aseptic rooms.
- Coating floors in automatic warehouses.
- Coating floors in shopping centres.

TECHNICAL CHARACTERISTICS

Mapecfloor I 350 SL is a two-component fillerized epoxy resin formulate according to a formula developed in the MAPEI R&D laboratories.

Mapecfloor I 350 SL is versatile and may be applied at a thickness from 1 to 4 mm.

Mapecfloor I 350 SL is particularly suitable for the foodstuffs industry. It forms continuous and flat surfaces with an attractive finish.

Mapecfloor I 350 SL forms a strong surface which is highly resistant to chemicals and abrasion. It may be used in a variety of systems, such as multi-layered and self-levelling floors.

RECOMMENDATIONS

- Do not apply **Mapecfloor I 350 SL** on damp substrates or on substrates with capillary rising damp (please contact our Technical Services Department).
- Do not dilute **Mapecfloor I 350 SL** with solvent or water.
- Do not apply **Mapecfloor I 350 SL** on dusty or crumbling substrates.
- Do not apply **Mapecfloor I 350 SL** on substrates with oil or grease stains or stains in general.
- Do not apply **Mapecfloor I 350 SL** 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 **Mapecfloor I 350 SL** 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.
- If rooms where the product is being used need to be warmed up do not use heaters that burn hydrocarbons, otherwise the carbon dioxide and water vapour given off into the air will affect the shine on the finish and ruin its appearance. Use electric heaters only.
- Remove aggressive chemicals as soon as possible after they come into contact with **Mapecfloor I 350 SL**.

- 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 it with a sheet of polythene).
- The temperature of the substrate must be at least 3°C higher than the dew-point temperature.

Apply **Mapefloor I 350 SL**:

- in an even coat with a uniform thickness;
- with a notched trowel, varying the pitch of the notches according to the thickness applied when applying self-levelling layers on concrete;
- with a smooth trowel for multi-layered systems;
- with a medium-haired roller for varnishing.

APPLICATION PROCEDURE

Preparation of the substrate

Concrete substrates must be clean and free of oil, grease and any loose or detached parts. We recommend preparing the substrate by shot-blasting followed by removal of the dust with a vacuum cleaner.

Preparation of the product

Non-slip coat – thickness 1 mm

- Spread on **Primer SN** (A+B) coloured beforehand with **Mapecolor Paste** mixed with **Quartz 0.5** at a ratio of 1 : 0.4 with a smooth trowel. While it is still fresh, sprinkle on **Quartz 0.5** until the primer is completely saturated.
- When the primer has hardened, remove any excess sand with an industrial vacuum cleaner, sand the surface and apply **Mapefloor I 350 SL** mixed beforehand with **Mapecolor Paste** (add 0.7 kg of **Mapecolor Paste** for each 8 kg package of **Mapefloor I 350 SL** (A+B)). Spread on using a medium-haired roller, making sure that the roll strokes criss-cross over each other.

Smooth self-levelling coat – thickness 2 mm

- Spread on **Primer SN** (A+B) mixed with **Quartz 0.5** at a ratio of 1 : 0.4 with a smooth trowel. While it is still fresh, sprinkle on **Quartz 0.5** at a rate of approximately 0.5 kg/m².
- When the primer has hardened, apply **Mapefloor I 350 SL** (A+B) mixed beforehand with **Mapecolor Paste** (add 0.7 kg of **Mapecolor Paste** for each 8 kg package of **Mapefloor I 350 SL** (A+B) and **Quartz 0.25** at a ratio of 1 : 0.5. Mix until an even blend is formed, pour onto the floor and spread out evenly using a notched trowel with “V” shaped teeth.
- Pass over the surface with a spiked roller while the product is still fresh to even out the thickness and remove all air entrapped in the product.

Non-slip coat – thickness 3 mm

- Spread on **Primer SN** (A+B) mixed with **Quartz 0.5** at a ratio of 1 : 0.4 with a smooth trowel. While it is still fresh, sprinkle on **Quartz 0.5** until the primer is completely saturated.
- When the primer has hardened, remove any excess sand with an industrial vacuum cleaner, sand the surface and apply **Mapefloor I 350 SL** (A+B) mixed beforehand with **Mapecolor Paste** (add 0.7 kg of **Mapecolor Paste** for each 8 kg package of **Mapefloor I 350 SL** (A+B) and **Quartz 0.5** at a ratio of 1 : 0.5. Mix until an even blend is formed, pour onto the floor and spread out evenly using a smooth trowel.
- Sprinkle **Quartz 0.5** sand on the surface of **Mapefloor I 350 SL** until it is saturated.
- When it has hardened remove the excess sand, sand the surface and remove the dust with an industrial vacuum cleaner.
- Apply the finishing layer of **Mapefloor I 350 SL** (A + B + **Mapecolor Paste**) with a smooth trowel or rake smoothing to zero. Pass over the surface with a medium-haired roller, making sure that the roll strokes criss-cross over each other.

Consumption

Non-slip coat – thickness 1 mm

- **FIRST COAT**

Primer SN (A + B + colour)	0.7 kg/m ²
Sprinkling of Quartz 0.5 on fresh product	3.0 kg/m ²
- **FINISHING COAT**

Mapefloor I 350 SL (A + B + Mapecolor Paste)	0.6 kg/m ²
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Smooth self-levelling coat – thickness 2 mm

- **FIRST COAT**

Primer SN (A + B)	0.6 kg/m ²
Sprinkling of Quartz 0.5 on fresh product	0.5 kg/m ²
- **FINISHING COAT**

Mapefloor I 350 SL (A + B + Mapecolor Paste + Quartz 0.25)	3.6 kg/m ²
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Multi-layered non-slip coat – thickness 3 mm

- **FIRST LAYER**

Primer SN (A + B)	0.6 kg/m ²
Sprinkling of Quartz 0.5 on fresh product	2.0 kg/m ²
- **INTERMEDIATE LAYER**

Mapefloor I 350 SL (A+B + Mapecolor Paste)	0.9 kg/m ²
Sprinkling of Quartz 0.5 on fresh product	2.5 kg/m ²
- **FINISHING COAT**

Mapefloor I 350 SL (A+B + Mapecolor Paste)	0.6 kg/m ²
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Cleaning

Tools used to prepare and apply **Mapefloor I 350 SL** must be cleaned immediately after use with alcohol. Once hardened, the product may only be removed mechanically.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	component A	component B
Colour:	neutral	straw
Consistency:	liquid	liquid
Density (g/cm ³):	1.5	1.0
Viscosity at +23°C (mPa·s):	6000 ÷ 8000 (# 4 - 10 rpm)	300 (# 2 - 50 rpm)

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

Mixing ratio:	component A : component B = 75 : 25
Colour of mix:	neutral
Consistency of mix:	thick fluid
Density of mix (kg/m ³):	1,340
Viscosity of mix (mPa·s):	1600 ± 300 (# 3 - 20 rpm)
Pot life of mix at +20°C:	35 minutes
Surface temperature:	from +8°C to +30°C

FINAL PERFORMANCE

Dust dry at +23°C and 50% R.H.:	2-4 hours
Set to light foot traffic at +23°C and 50% R.H.:	24 hours
Final hardening time:	7 days
Taber Test after 7 days (at +23°C and 50% R.H.) (1,000 cycles/1,000 revs, CS 17 disk) (mg):	70

Performance characteristics	Test method	Requirements according to EN 13813 for synthetic resin screeds	Performance of product
BCA wear resistance (µm):	EN 13892-4	≤ 100	10
Bond strength (N/mm ²):	EN 13892-8; 2004	≥ 1.5	3.10
Impact strength (Nm):	EN ISO 6272	≥ 4	20
Reaction to fire:	EN 13501-1	from A ₁ to F ₀	B _{fl} -s1
Performance characteristics on fire protection for trains and railway components	Test method	Performance of product	
Class I smoke:	UNI CEI 11170	F1	
Reaction to fire:	UNI CEI 11170-3	Class 1 B (UNO B)	



Mapefloor I 350 SL

PACKAGING

8 kg kits:
component A = 6 kg;
component B = 2 kg.

STORAGE

Mapefloor I 350 SL may be stored for up to 24 months in its original packaging in a dry place and at a temperature of at least +5°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Mapefloor I 350 SL component A is irritant for the eyes and skin. Both component A and B may cause sensitization when in contact with the skin of those predisposed.

Mapefloor I 350 SL component B is corrosive and it may cause burns and damage to the eyes. The product contains low molecular weight epoxy resins that may cause sensitization if cross-contamination occurs with other epoxy compounds. When applying the product, wear protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin wash immediately with plenty of clean water and seek medical attention. Furthermore, **Mapefloor I 350 SL** component A and B are dangerous for aquatic life. Do not dispose of them in the environment.

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

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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