

MAPEFLOOR CPU/TC GLOSSY

Glossy topcoat for polyurethane-cement flooring systems and for walls



DESCRIPTION

Mapefloor CPU/TC Glossy is a polyurethane/cement-based topcoat with a glossy aspect, easy to sanitize, to be used in combination with the solutions from the range of **Mapefloor System CPU+/DP** and with the **Mapefloor CPU+** range of products, according to a formula developed in the MAPEI R&D laboratories.

TECHNICAL CHARACTERISTICS

Mapefloor CPU/TC Glossy provides glossy topcoat layers for products and systems of **Mapefloor CPU+** range featuring:

- fast hardening;
- resistance to abrasion;
- impermeability to liquids in general;
- odourless during application and hardening;
- complies with requirements according to EN 13813 "*Screed material and floor screeds - Screed material - Properties and requirements*", which specifies the requirements for screed materials used in the construction of internal floors

ADVANTAGES

- Suitable for the food industry
- Easy to sanitize.
- Fast return to service.

WHERE TO USE

- Glossy finishing layer for polyurethane-cement systems **Mapefloor System CPU+/DP**, even in wet operating conditions.
- Glossy finishing layer of coverings, for example between walls and floors, made with **Mapefloor CPU+/COVE**.
- Easy to clean and chemical resistant coating of concrete vertical surfaces in food, chemical, pharmaceutical industries, etc.
- Optional finishing glossy layer for systems made with **Mapefloor CPU+** product range.

COLOURS

Mapefloor CPU/TC Glossy is available in red, beige, green, grey and ochre.

It is recommended to choose **Mapefloor CPU/TC Glossy** in a similar colour to the base system. **Mapefloor CPU/TC Glossy** is much shinier than **Mapefloor CPU+/TC** and, in particular, than all the other products of the **Mapefloor CPU+** range.

RECOMMENDATIONS

- Do not apply **Mapefloor CPU/TC Glossy** on wet substrates with visible water on the surface or on concrete cast aged less than 7 days.
- Do not dilute **Mapefloor CPU/TC Glossy** with solvent or water.
- Do not apply **Mapefloor CPU/TC Glossy** on dusty or crumbling substrates.
- Do not apply **Mapefloor CPU/TC Glossy** on substrates contaminated by oil, grease, or dirt in general.
- Do not apply **Mapefloor CPU/TC Glossy** on not properly prepared substrates.
- Do not mix partial quantities of the components to prevent mistakes in the mixing ratios which would cause incorrect hardening of the product.
- Do not expose the mixed product to sources of heat sources.
- Do not apply **Mapefloor CPU/TC Glossy** on ceramic substrates or stone materials in general with no appropriate specific preparation of the laying surface.
- **Mapefloor CPU/TC Glossy** exposed to UV rays could lead to noticeable colour changes; this phenomenon does not affect the performance of the coating in any way.
- The colour of **Mapefloor CPU/TC Glossy** can also change in case of contact with certain chemicals; the colour variation itself is not an indication of chemical aggression on the system
- Remove as soon as possible any chemicals in contact with **Mapefloor CPU/TC Glossy**.
- For cleaning, use suitable equipment and detergents depending on type of dirt to be removed.
- Protect **Mapefloor CPU/TC Glossy** from water for at least 24 hours after the application.

APPLICATION PROCEDURE

Substrate characteristics

Substrates made up with **Mapefloor CPU+** product range must be hardened, no longer sticky, dry, clean and dust-free.

Please read the technical data sheets of the related **Mapefloor CPU+** product for further application details.

Mapefloor CPU/TC Glossy can also be used as a coating on concrete and cementitious surfaces in general such as walls, pillars, channels, etc. These surfaces must be dry or moderately humid, clean, undamaged, without crumbling or detached parts. The substrate concrete must be at least 7 days old and at the time of application it must have a minimum compressive strength of 25 N/mm² and 1.5 N/mm² tensile strength. The mechanical performance of the substrate must in any case be adequate for the purpose and for the stresses for the specific operating conditions.

Substrate preparation

Mechanically remove any loose or crumbly parts. Cracks can be repaired with **Primer SN** filled with quartz sand or thixotropic agent like **Additix PE** or with **Mapefloor JA** or **Mapefloor JA Fast** depending on the width and depth of the defects and cracks. For the reconstruction of heavily degraded areas and joints, the filling of large depressions, repairs, or minimal localized changes to slopes, etc., please contact the Technical Service. Before proceeding with the application of the material, the surface dust must be carefully vacuumed.

Temperature

To avoid the condensation on the surface, the substrate temperature must be at least 3°C above the dew point. The relative humidity of the air must be lower than 80%. The ambient temperature must be between +10°C and +30°C.

In case of application at temperature above +25°C, store the material in sheltered spot at lower temperature. This will allow to get longer pot life and get the application simpler even at high temperature. In case of temperature below +15°C, store the material in a warmer place (heated room temperature) to avoid the risk of too high viscosity of the mix making the application harder and turning into a potential problem of aesthetics effect.

Preparation of the product

Stir the contents of component A, add the content of component B and mix with a low-speed electric mixer until completely blended.

Then slowly and gradually add component C (powder) continuing to mix for at least two minutes until an even mixture is obtained.

Application of the product

Mapefloor CPU/TC Glossy can be applied evenly with a short or medium pile roller on substrates made with **Mapefloor CPU+** products range within 12 hours of their hardening at +23°C. If this time is exceeded, mechanical preparation of the surface must be carried out.

In the case of wall cladding or coving, apply the product in at least two coats.

There is no maximum overcoating time for **Mapefloor System CPU+/DP** systems range, as long the surface is clean and free from dust.

Immediately after mixing, pour all **Mapefloor CPU/TC Glossy** on the floor. Then spread the material evenly with a straight steel trowel, crossing the strokes to seal the roughness properly.

Finally, back-roll with a medium pile roller (50-60 cm wide), to even out any excess product and obtain the correct aesthetic and functional result.

It is recommended to apply each fresh batch of product immediately after the previous one while it is still wet and workable so that they mix and bond together reducing visible overlaps.

Apply the product within the pot life indicated in the data table referred to a temperature of +23°C. Higher surrounding temperatures will reduce the pot life, while lower temperatures will increase it.

CONSUMPTION

*Finishing layer for cementitious substrates or for products from the **Mapefloor CPU+** range*

Mapefloor CPU/TC Glossy: 0.4 -1.2 kg/m² (depending on the build-up of the system, surface roughness and ambient conditions during application).

CLEANING TOOLS

Clean tools used to prepare and apply **Mapefloor CPU/TC Glossy** with polyurethane thinner immediately after use. Once hardened, the product may only be removed using mechanical means.

PACKAGING

6.3 kg kits (component A = 2 kg - component B = 2 kg - component C = 2.3 kg).

STORAGE

12 months in the original sealed packaging and kept in a dry and sheltered spot at temperatures between +10°C and +30°C. Components A and B can be damaged by frost. **Mapefloor CPU/TC Glossy** part C is sensitive to humidity

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

When the product reacts, it generates considerable heat. After mixing components A, B and C we recommend applying the product as soon as possible and to never leave the container unguarded until it is completely empty.

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website, www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	component A	component B	component C
Consistency:	liquid	liquid	powder
Colour:	red - beige - green - grey - ochre	dark brown	white
Density:	1.035-1.055 g/cm ³	1.200-1.300 g/cm ³	–
Bulk density:	–	–	0.84 g/cm ³
Viscosity at +23°C:	500-1,500 mPa·s (#2 - 20 rpm)	350-550 mPa·s (#1 - 10 rpm)	–

APPLICATION DATA

Mixing ratio:	A + B + C = 2 / 2 / 2.3 by weight
Colour of mix:	red - beige - green - grey - ochre
Consistency of mix:	fluid
Density of mix	1,450 kg/m ³
Viscosity at +23°C:	2,000-3,000 mPa·s (#3; 20 rpm)
Pot life of mix at +23°C:	approx. 15 mins.
Temperature of surface for the application:	+10°C / +30°C

FINAL PERFORMANCE (at +23°C and 50% R.H)

Dust dry :	4-6 h
Set to foot traffic:	24 h
Complete hardening time:	7 days
Shore D hardness after 28 days (DIN 53505):	80
Adhesion strength (EN 13892-8):	≥ 3.5 N/mm ²
Taber Test (CS17 wheel, 1,000 g/1,000 revs):	7 days: 75 ± 5 mg 28 days: 70 ± 5 mg
Thermal shock determination (EN 13687-05):	≥ 3.5 N/mm ²
Gloss (ISO 2813):	70-80

Essential characteristics	Test method	Requirements according to EN 13813 for synthetic resin-based screeds	Typical values
BCA wear resistance:	EN 13892-4	≤ AR6	AR0.5
Flexural strength after 28 days:	EN 13892-2	From F1 to F50	F30
Compressive strength after 28 days:	EN 13892-2	From C5 to C80	C50
Reaction to fire:	EN 13501-1	from A ₁ FL to F _{FL}	B _{FL} -s1

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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, 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 ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

TECHNICAL SPECIFICATION

Supply and application of finishing layer for cement-polyurethane systems (such as **Mapefloor CPU+** range of products and systems from Mapei S.p.A.), or coves between floors and walls (such as **Mapefloor CPU+/COVE** from Mapei S.p.A.) or as coating for vertical cementitious surfaces, by application of a polyurethane-cement based topcoat, with final coloured glossy aspect, sanitizable (such as **Mapefloor CPU/TC Glossy** from Mapei S.p.A.). The product is applied by roller or steel or rubber trowel, depending on the roughness of the substrate.

The hardened product must have the following characteristics:

Colours:	grey - beige - red - green - ochre
Consistency of the mixture:	fluid
Density of the mixture:	1,450 kg/m ³
Gloss (ISO 2813):	70-80
Pot-life at +23°C:	approx. 15 min.
Dust dry at +23°C and 50% R.H.:	4-6 h
Set to foot traffic at +23°C and 50% R.H.:	24 h
Complete hardening time:	7 d
Adhesion strength (EN 13892-8)	≥ 3.5 N/mm ²
Flexural strength after 28 days (EN 13892-2):	31 N/mm ²
Compressive strength after 28 days (EN 13892-2):	51 N/mm ²
Taber Test after 28 days (at +23°C, 50% R.H., CS17 wheel, 1,000 g/1,000 revs):	70 ± 5 mg
Shore D hardness after 28 days (DIN 53505):	80
Reaction to fire (EN 13501-1):	B _{FL} -s1

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