

MAPEFLOOR FINISH 59 W

MAPEFLOOR FINISH 59 W TRP

Two-component aliphatic, water-based, transparent or coloured, matt polyurethane finish



DESCRIPTION

Mapefloor Finish 59 W is a two-component, aliphatic, water based, transparent or coloured polyurethane matt finish according to a formula developed in the MAPEI R&D laboratories.

When hardened, **Mapefloor Finish 59 W** improves the wear resistance of the treated surfaces.

As the product is water-based, it is odourless making it suitable for indoor uses, thus facilitating the installers during their application operations.

TECHNICAL CHARACTERISTICS

- High wear resistance;
- water dispersed;
- matt finish;
- resistant to UV rays, not-yellowing;
- available in the transparent (**Mapefloor Finish 59 W TRP**) and coloured version (**Mapefloor Finish 59 W**);
- complies the M1 protocol which includes VOC, formaldehyde and ammonia emission requirements according to EN 16516 and odour testing according to ISO 16000-28;
- when applied on concrete substrates **Mapefloor Finish 59 W** complies with the principles defined in EN 1504-9 (*"Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use and application of systems"*), and the requirements of EN 1504-2 (*"Protection systems for concrete surfaces"*) for class: products for protecting surfaces - coating (C) – moisture control (MC) + increasing resistivity by limiting moisture content (IR).

ADVANTAGES

- Easy to apply
- It improves the wear resistance of the systems on which it is applied.
- Odourless during application and hardening.
- A slip resistant finish may be obtained by adding **Mapefloor Filler**.
- Sustainability: it can contribute to LEED credits. EPD (Environmental Product Declaration) compliant.

WHERE TO USE

Mapefloor Finish 59 W is particularly suitable for finishing of elastic resin systems from the **Mapefloor Comfort System** range, for resin systems from the **Mapefloor System** range (for example **Mapefloor System 33** or **Mapefloor System 53**) and for self-levelling cementitious systems made with **Ultratop** or **Ultratop Living** or for spatulated cementitious floors and coverings made with **Ultratop Loft**. It improves the resistance to wear and scratches of the treated support, limiting the absorption of dirt and facilitating regular cleaning and maintenance operations.

Mapefloor Finish 59 W is also suitable for protecting concrete surfaces.

COLOURS AVAILABLE

Mapefloor Finish 59 W is available in several RAL colours. Please contact MAPEI Technical Assistance to know the available colours.

Using colours in complete contrast with the colour of the substrate is not recommended.

The product is also available in the transparent version: **Mapefloor Finish 59 W TRP**.

RECOMMENDATIONS

- Do not apply **Mapefloor Finish 59 W** on dusty or crumbly substrates or that have not been prepared as specified and primed.
- Do not apply **Mapefloor Finish 59 W** on substrates with oil or grease stains or dirt in general.
- The temperature of the substrate during the application and the hardening must be at least 3°C above the dew point and the relative humidity of the air must be max. 80%.
- 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.
- If rooms where the product is being used need to be warmed up, do not use heaters that burn fossil fuels. The carbon dioxide and water vapour given off into the air will affect the finish of the coating. Use electric heaters only.
- Protect the product from water for at least 24 hours after its application.
- If more than one coat of finish is applied, do not exceed the maximum recommended over coating time between each coat to guarantee optimum adherence of the layers. If this time is exceeded, the surface of the previous layer must be abraded mechanically; then thoroughly remove all the dust produced by vacuum before applying the next coat.
- Do not apply **Mapefloor Finish 59 W** on damp substrates or on substrates with capillary rising damp (contact our Technical Services Department).
- Do not dilute **Mapefloor Finish 59 W** with organic solvents.
- If the product is used in the coloured version, it is recommended to use components from the same production batch to ensure the homogeneity of the final colour.
- The coating may change colour if it comes into contact with aggressive chemicals. An aesthetical change, however, does not mean that it has been damaged by chemicals.
- Remove aggressive chemicals as soon as possible after they come into contact with **Mapefloor Finish 59 W**.
- Use suitable specific cleaning equipment and detergent to clean the product, depending on the type of dirt or stain to be removed.

APPLICATION PROCEDURE

Substrate preparation

Mapefloor Finish 59 W can be applied on both new and existing resin systems..

The substrate must be hardened, dry, perfectly clean, free from oils, dust, greasy substances and/or any contaminant before the application of the product.

For all the substrate consisting of resin system older than 24 hours it is necessary to abrade their surface by means of suitable sanding machine with fine abrasive discs (200-300 grit) or with a fine graded abrasive pad.

The application of **Mapefloor Finish 59 W** on concrete substrates or cementitious systems from the **Ultratop** range must be carried out after the complete hardening of the cementitious material (at least 24 hours,

depending on the thicknesses and temperature), and must be preceded by accurate sanding. Thoroughly remove all dust by vacuum before the application of the products.

On supports made with products from the **Ultratop** range, apply a preliminary coat of **Ultratop Base Coat** in order to uniform the absorption of the substrate. The primer must be completely dry before the application of **Mapefloor Finish 59 W**.

On concrete supports, apply a preliminary coat of primer made with **Mapecoat I 600 W** diluted with 3 parts by weight of water. The primer must be hardened before the application of **Mapefloor Finish 59 W**.

Preparation of the product

Pour all the content of component B into the container of component A and mix with a low-speed electric mixer until they are completely blended.

We recommend preparing only the quantity that may be applied within the maximum workability time indicated in the table. If a slip resistant surface finish is required to **Mapefloor Finish 59 W**, add 3-5% by weight of **Mapefloor Filler**, microcrystalline filler material, while mixing.

Application of the product

Apply two or more layers of **Mapefloor Finish 59 W** with a short-pile roller or by airless spray. The roller application must be carried out taking care to cross the rolls in each coat.

If the over-coating time between each coat exceeds the recommended time in the table, lightly sand the surface of the first coat then thoroughly remove by vacuum the dust produced before applying the next one.

Over-coating times are shorter at high temperatures and longer at low temperatures.

Make sure rooms are well ventilated to help the product dry.

CLEANING

Clean tools used to prepare and apply **Mapefloor Finish 59 W** immediately after use with plenty of running water. Once hardened, the product may only be removed mechanically.

CONSUMPTION

0.1-0.2 kg/m² per coat, depending on the roughness and porosity of the substrate.

PACKAGING

Mapefloor Finish 59 W

Unit 6 kg:

- component A: 5.5 kg
- component B: 0.5 kg

Mapefloor Finish 59 W TRP

Unit 5.5 kg:

- component A: 5.0 kg
- component B: 0.5 kg

STORAGE

12 months in its original, sealed packaging in a dry place at a temperature of between +12°C and +30°C. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

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

	Mapefloor Finish 59 W TRP		Mapefloor Finish 59 W	
	comp. A	comp. B	comp. A	comp. B
Colour:	transparent	transparent	RAL colours	transparent
Consistency:	liquid	liquid	liquid	liquid
Density:	1.04 g/cm ³	1.10 g/cm ³	1.20 g/cm ³	1.10 g/cm ³

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

Mixing ratio by weight:	A : B = 10 : 1	A : B = 11 : 1
Colour of mix:	transparent	RAL colours
Consistency of mix:	fluid	fluid
Density of mix:	1,050 kg/m ³	1,155 kg/m ³ *
Workability time at +23°C:	60 mins.	60 mins.
Temperature of application surface:	from +10°C to +30°C	from +10°C to +30°C
Waiting time between coats at +23°C:	min. 4 h - max. 72 h	min. 4 h - max. 72 h
Dust dry:	approx. 50 mins.	approx. 35 mins.

* depending on colour applied

FINAL PERFORMANCE

Abrasion resistance after 7 days (Taber abrasion meter, CS17 wheel, 1000 g, 1,000 revs) (EN ISO 5470-1):	25 mg	45 mg
Abrasion resistance after 7 days (Taber abrasion meter, CS10 wheel, 1000 g, 1,000 revs) (EN ISO 5470-1):	20 mg	30 mg
Glossiness (Gloss 60°C) (ISO 2813):	7	10
Set to foot traffic at +23°C and 50% R.H.:	12 h	12 h
Complete hardening time at +23°C and 50% R.H.:	7 days	7 days
QUV colour variation (ASTM G 154):	more than 1,500 hours with no variation	more than 1,500 hours with no variation

ESSENTIAL CHARACTERISTICS FOR CE MARKING ACCORDING TO EN 1504-2 - TAB.ZA. 1e (coating C, MC-IR)

Essential characteristics	Test method according to EN 1504-2	Requirements	Typical value
Permeability to water vapour:	EN ISO 7783-2	Class I $s_D < 5$ m (permeable to water vapour) Class II $5 \text{ m} \leq s_D \leq 50$ m Class III $s_D > 50$ m (impermeable to water vapour)	Class I
Capillary absorption and permeability to water:	EN 1062-3	$w < 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$	0.018

Direct traction adherence test. Reference substrate: MC (0.40) as specified by EN 1766, curing time: – 28 days for one-component systems containing concrete and PCC systems: – 7 days for reactive resin systems:	EN 1542	Average (N/mm ²) Crack-bridging or flexible systems with no traffic: ≥ 0.8 (0.5) ^{b)} with traffic: ≥ 1.5 (1.0) ^{b)} Rigid systems^{c)} with no traffic: ≥ 1.0 (0.7) ^{b)} with traffic: ≥ 2.0 (1.0) ^{b)}	> 2.0 MPa (rigid system with traffic)
Reaction to fire:	EN 13501-1	from A1 _{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 SPECIFICATIONS

Supply and installation of aliphatic two-component polyurethane, water-based, finishing product, transparent or coloured, matt, resistant to wear, to be used as topcoat of resin systems, even flexible, and cementitious systems or as a protector for concrete surfaces (such as **Mapecoat I 600 W** or **Mapecoat I 600 W TRP** by Mapei S.p.A.). The application will be carried out by short-pile roller or by airless spray in two or more layers. On substrates made of cement-based products (such as products from the **Ultratop** range by Mapei S.p.A.), the topcoat must be applied exclusively after applying a base coat using a water-dispersed single-component acrylic formula, with the function to even out the absorption and seal pores (such as **Ultratop Base Coat** by Mapei S.p.A.). On concrete surfaces the application of the topcoat will take place only after the application of a suitable two-component water-based epoxy primer (such as **Mapecoat I 600 W** by Mapei S.p.A.), diluted with water in the ratio of 1:3 by weight.

In case a slip-resistant surface profile is required, it will be possible to mix the polyurethane finish with special micrometric fillers, very resistant to wear (such as **Mapecoat I 600 W** by Mapei S.p.A.), at a rate of 3-5% by weight.

The material must have the following characteristics:

Mixing ratio by weight:	A : B = 10 : 1*	A : B = 11 : 1**
Density of the mix:	1,050 kg/m ³	1,155 kg/m ³ (depending on colour applied)
Workability time at +23°C:	60 min.	
Abrasion resistance after 7 days (Taber abrasion meter, CS17 wheel, 1000 g, 1,000 revs) (EN ISO 5470-1):	25 mg	45 mg

Abrasion resistance after 7 days (Taber abrasion meter, CS10 wheel, 1000 g, 1,000 revs) (EN ISO 5470-1):	20 mg	30 mg
Permeability to water vapour (EN ISO 7783-2):	$s_D < 5 \text{ m}$	
Capillary absorption and permeability to water (EN 1062-3):	$0.018 \text{ kg/m}^2 \cdot \text{h}^{0.5}$	
Gloss (Gloss 60°) (UNI ISO 2813):	7	10
QUV colour variation (ASTM G 154):	more than 1,500 hours with no variation	
Reaction to fire class (EN 13501-1):	B _{FL-s1}	
Complies the M1 protocol which includes VOC, formaldehyde and ammonia emission requirements according to EN 16516 and odour testing according to ISO 16000-28		
Contributes to obtaining LEED credits, EPD (Environmental Product Declaration) compliant		

* transparent version

** coloured version

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