

# MAPEFLOOR FINISH 59 W

# MAPEFLOOR FINISH 59 W TRP

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



## WHERE TO USE

**Mapefloor Finish 59 W** is a two-component water-based aliphatic polyurethane coating product with a transparent or coloured matt finish.

**Mapefloor Finish 59 W** is particularly indicated as top-coat of flexible coatings realized with **Mapefloor Comfort System** but it's also suitable for the resin systems of **Mapefloor System** range and cementitious systems from **Ultratop System** range as it improves their resistance to wear and to scratches while limiting dirt-pickup and making routine cleaning and maintenance operations simpler. **Mapefloor Finish 59 W** is also suitable to protect concrete surfaces.

### Some application examples

- Matt transparent or coloured finish on resin floors such as **Mapefloor System 33**, **Mapefloor System 53** and **Mapefloor Comfort Systems**.
- Matt transparent or coloured finish on cementitious self-levelling floors made of **Ultratop** or **Ultratop Living** or trowelled cementitious coatings made of **Ultratop Loft**.
- Protection of concrete surfaces.

## TECHNICAL CHARACTERISTICS

**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 characteristics of resistance to abrasion and to scratches 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.

**Mapefloor Finish 59 W** has the following performance characteristics:

- very high wear resistance;
- matt finish;
- resistant to ultra-violet rays, non-yellowing;
- available in the transparent (**Mapefloor Finish 59 W TRP**) and coloured version (**Mapefloor Finish 59 W**);
- easy to apply;
- water dispersed;
- a slip resistant finish may be obtained by adding **Mapefloor Filler**.

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).

## 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, crumbling or weak substrates.
- Do not apply **Mapefloor Finish 59 W** on wet surfaces or on surfaces with oil or grease stains.
- Only apply **Mapefloor Finish 59 W** if the temperature of the substrate is at least 3°C higher than the dew-point temperature.
- 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 old coatings.

If the product is applied on new resin coatings, they must be hardened, dry and have been applied no more than 24 hours before. If more time has passed than indicated above, the resin substrates must be perfectly clean, free from oils, greasy substances and/or any contaminant. They must be abraded using a single-head sander with 200-300 grade sandpaper or a fine graded abrasive pad.

After mechanically preparing the substrate, remove all dust by thoroughly vacuuming the surface to guarantee the correct adhesion of the product.

The application of **Mapefloor Finish 59 W** on substrates made using cementitious products 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 light sanding. After the dust produced has been completely vacuumed, in any case before applying **Mapefloor Finish 59 W**, a base coat of **Ultratop Base Coat** has to be applied to regulate the absorption of the substrate.

**Mapefloor Finish 59 W** can also be applied on new or old concrete, as long as the latter is perfectly clean, free from oils, greases and/or any other contaminant. Before proceeding with the treatment, it is always necessary to carry out an accurate sanding, followed by the vacuuming of the dust produced by an industrial vacuum cleaner in order to guarantee the correct adhesion of the finish which however will be applied only after the pore-sealing treatment to be carried out with a coat of **Mapecoat I 600 W**, diluted with water at a ratio of 1:3 by weight.

### Preparation of the product

To prepare the product, mix component A with component B 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. 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 coats of **Mapefloor Finish 59 W** with a short-pile roller (such as mohair) or by airless spray. When applying by roller proceed in two directions at right angles to each other.

If the over-coating time between each coat exceeds the recommended time in the table "Technical Data", 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/m<sup>2</sup> 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](http://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 <sup>3</sup>	1.10 g/cm <sup>3</sup>	1.09 g/cm <sup>3</sup>	1.10 g/cm <sup>3</sup>

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

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 <sup>3</sup>	1,095 kg/m <sup>3</sup> *
Workability time at +23°C:	60-90 mins.	60-90 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
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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 <sup>2</sup> ) <b>Crack-bridging or flexible systems</b> with no traffic: $\geq 0.8$ (0.5) <sup>b</sup> with traffic: $\geq 1.5$ (1.0) <sup>b</sup> <b>Rigid systems<sup>c</sup></b> with no traffic: $\geq 1.0$ (0,7) <sup>b</sup> with traffic: $\geq 2.0$ (1.0) <sup>b</sup>	$> 2.0$ Mpa (rigid system with traffic)
Reaction to fire:	EN 13501-1	from A <sub>1FL</sub> to F <sub>FL</sub>	B <sub>FL-s1</sub>

## 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](http://www.mapei.com)

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8918-8950-7-2022 en (IT)

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