MAPEFLOOR FINISH 58 W

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





CE EN 1504-2

EN COMPLIANCE WITH EUROPEAN STANDARD EN 1504-2 (C) PRINCIPLES MC-IR MAPEI SURFACE PROTECTION SYSTEMS FOR CONCRETE

DESCRIPTION

Mapefloor Finish 58 W is a two-component polyurethane aliphatic, water based, transparent matt finish according to a formula developed in the MAPEI R&D laboratories.

When hardened, **Mapefloor Finish 58 W** improves the wear resistance of the treated surfaces and makes regular cleaning and maintenance operations easier.

TECHNICAL CHARACTERISTICS

- high wear resistance;
- matt finish;
- very low yellowing;
- water dispersed;

When applied on concrete substrates **Mapefloor Finish 58 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 cementitious and resinous 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 58 W is used as transparent matt finish on cementitious and resinous substrates, such as:

- self-levelling resin systems, like **Mapefloor System 33** and **Mapefloor System 53;**

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- self-levelling cementitious system made with **Ultratop** or **Ultratop Living**;
- decorative cementitious systems made with **Ultratop Loft**;
- concrete surfaces.

RECOMMENDATIONS

- Do not apply **Mapefloor Finish 58 W** on dusty, crumbling or weak substrates or that have not been prepared as specified and primed.
- Do not apply **Mapefloor Finish 58 W** on substrates with oil or grease stains or dirt in general.
- Do not apply **Mapefloor Finish 58 W** on damp substrates or on substrates with capillary rising damp (contact our Technical Services Department).
- 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 overlay time between each coat to guarantee optimum adherence of the coating. If this time is exceeded, the surface of the previous layer must be abraded mechanically before applying the next one.
- Do not dilute **Mapefloor Finish 58 W** with organic solvents.
- The component B of **Mapefloor Finish 58 W** may be subject to shade variations, from colourless to straw yellow. This phenomenon does not affect the performance and the final aesthetic appearance of the coating.
- 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 58 W**.
- Use suitable specific cleaning equipment and detergent to clean the product, depending on the type of dirt or stain to be removed.
- 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%.

APPLICATION PROCEDURE

Preparation of the substrate

Mapefloor Finish 58 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 substrates consisting of resin systems 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 58 W** on concrete substrates or cementitious systems from the **Ultratop** range must be carried out after the complete hardening of the cementitious material (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 58 W**.

On concrete substrates, 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 58 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 for at least two minutes 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 58 W**, add 1-3% by weight of **Mapefloor Filler**, microcrystalline filler material, while mixing. In this case, it is recommended to stir the product frequently in the container during the application phase to avoid the sedimentation of **Mapefloor Filler**.

Application of the product

Apply **Mapefloor Finish 58 W** evenly in two or more layers by short-pile roller, such as mohair, 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 58 W** immediately after use with plenty of 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

Kit 5.5 kg (A+B):

- component A: 5 kg
- component B: 0,5 kg

STORAGE

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

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

This product contains microplastics. The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council. Avoid release to the environment. Collect spillage. Do not dispose of rinsing water into the environment. Dispose waste in accordance with the local rules.

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	comp. A	comp. B
Colour:	transparent	transparent
Consistency:	liquid	liquid
Density:	1.03 - 1.09 g/cm³	1.08 – 1.16 g/cm³
Ford Cup viscosity:	19 - 30 sec (nr.4)	40 - 60 sec (nr.3)

APPLICATION DATA (at +23°C - 50% R.H.)	
Mixing ratio by weight:	A : B = 10 : 1
Colour of mix:	transparent
Consistency of mix:	fluid
Density of mix:	1,070 - 1,100 kg/m³
Workability time:	60 mins.
Application temperature (refers to ambient, material and substrate):	+10°C to +30°C
Waiting time between coats:	min. 6 h - max. 24 h
Dust dry:	approx. 35 mins.

FINAL PERFORMANCE (at +23°C and 50% R.H.)	
Abrasion resistance after 7 days (Taber abrasion meter, CS17 wheel, 1,000 g, 1,000 revs) (EN ISO 5470-1):	50 mg
Abrasion resistance after 7 days (Taber abrasion meter, CS10 wheel, 1,000 g, 1,000 revs) (EN ISO 5470-1):	34 mg
Glossiness (EN ISO 2813):	Gloss 10
Set to foot traffic :	12 h
Complete hardening time :	7 days
QUV colour variation (ASTM G 154):	more than 1,500 hours with no variation

MAIN 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 values
Permeability to water vapour:	EN ISO 7783-1 EN ISO 7783-2	Class I s_D < 5 m (permeable to water vapour) Class II 5 m ≤ s_D ≤ 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 kg/m²·$h^{0.5}$	w < 0,1 kg/m²·$h^{0.5}$
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/mm²) **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]	> 3.5 Mpa (rigid system with traffic)
Reaction to fire class:	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 a two-component, transparent, matt, non-yellowing, wear-resistant water-based polyurethane resin, for use as a finish for resin and cementitious floors or as a protective coating for concrete surfaces (such as **Mapefloor Finish 58 W** by Mapei S.p.A.). Application will be carried out by short-pile mohair roller or by airless spray in one or two coats. On cementitious surfaces, the finish must be applied after applying a base coat of a one-component water-based acrylic primer (such as **Ultratop Base Coat** by Mapei S.p.A.). On concrete surfaces the finish will be applied after applying a suitable two-component water-based epoxy primer (such as **Mapecoat I 600 W** by Mapei S.p.A.), diluted with water 1:3 by weight with water.

To obtain a non-slip surface, mix the polyurethane finish with 1-3% by weight of special, extremely wear-resistant micrometric fillers (such as **Mapefloor Filler** by Mapei S.p.A.).

The product must have the following performance characteristics:

Mixing ratio by weight:	A : B = 10 : 1
Density of the mix:	1,070 - 1,100 kg/m^3
Abrasion resistance after 7 days (Taber abrasion meter, CS17 wheel, 1,000 g, 1,000 revs) (EN ISO 5470-1):	50 mg
Abrasion resistance after 7 days (Taber abrasion meter, CS10 wheel, 1,000 g, 1,000 revs) (EN ISO 5470-1):	34 mg
Permeability to water vapour (EN ISO 7783-1; EN ISO 7783-2):	s_D < 5 m
Capillary absorption and permeability to water (EN 1062-3):	0.047 kg/m^2·h$^{0.5}$
Glossiness (EN ISO 2813):	Gloss 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
Contributes to obtaining LEED credits, EPD (Environmental Product Declaration) compliant.	

Mapei S.p.A.

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6709-6-2026 en (IT)

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