MAPEFLOOR FINISH 54 W/S

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





DESCRIPTION

Mapefloor Finish 54 W/S is a two-component polyurethane aliphatic, water based, transparent satin finish according to a formula developed in the MAPEI R&D laboratories.

When hardened, **Mapefloor Finish 54 W/S** improves the wear resistance of the treated surfaces and makes regular cleaning and maintenance operations easier.

TECHNICAL CHARACTERISTICS

- Good wear resistance;
- satin finish;
- water-based
- very low yellowing.

ADVANTAGES

- Easy to apply;
- odorless during application and hardening;
- it improves the wear resistance of the resinous and cementitious systems on which it is applied;
- a slip resistant finish may be obtained by adding **Mapefloor Filler.**

WHERE TO USE

Mapefloor Finish 54 W/S is used as transparent satin finish on cementitious and resinous substrates, such as:

- self-levelling resin systems, like **Mapefloor System 33** and **Mapefloor System 53;**
- self-levelling cementitious system made with **Ultratop** or **Ultratop Living**;
- decorative cementitious systems made with **Ultratop Loft.**

RECOMMENDATIONS

- Do not apply **Mapefloor Finish 54 W/S** on dusty, crumbling or weak substrates or that have not been prepared as specified.
- Do not apply **Mapefloor Finish 54 W/S** on substrates with oil or grease stains or dirt in general.
- Do not mix partial quantities of the components to avoid mixing errors; the product may not harden correctly.
- Do not dilute **Mapefloor Finish 54 W/S** with organic solvents.
- Component B of **Mapefloor Finish 54 W/S** 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.
- 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.
- 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 54 W/S**.
- 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 its application.
- 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 54 W/S can be applied on both new and existing cementitious or 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 54 W/S** on 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 even the absorption of the substrate. For further information concerning the characteristics and the method of application of **Ultratop Base Coat** please refer to the relevant technical data sheet. The base coat must be completely dry before the application of **Mapefloor Finish 54 W/S**.

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. The product can be diluted with maximum 10% by volume of water.

We recommend preparing only the quantity that may be applied within the maximum workability time indicated in the table.

If a slip resistant property is required to the **Mapefloor Finish 54 W/S**, add while mixing 1-3% by weight of the special micrometric **Mapefloor Filler**. 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**.

On very dark or intense shades the addition of **Mapefloor Filler** may cause a whitening effect on the surface.

Application of the product

Apply **Mapefloor Finish 54 W/S** evenly in two or more layers by short-pile roller, such as mohair, taking care to cross the rolls. On resin systems like **Mapefloor System 33** or **Mapefloor System 53** it is also possible to apply by airless spray.

If a second coat is required, respect the over-coating time indicate din the table. If the maximum waiting time is exceeded, 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 the rooms are well ventilated to help the product dry.

CLEANING

Tools used to prepare and apply **Mapefloor Finish 54 W/S** must be cleaned 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 characteristics of the substrate.

PACKAGING

Kit 5.5 l (A+B):

Component A: 5.0 l

Component B: 0.5 l

STORAGE

12 months in its sealed, original packaging, in a dry, covered place at a temperature 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	component A	component B
Colour:	transparent	transparent
Appearance:	liquid	liquid
Density:	1,030 - 1,060 g/cm³	1,120 - 1,125 g/cm³
Brookfield Viscosity:	90 mPa·s (# 1 - 20 rpm)	390 mPa·s (# 1 - 10 rpm)

APPLICATION DATA (at +23°C - 50% R.H.)	
Mixing ratio by volume:	comp A : comp B = 10 : 1
Colour of mix:	transparent
Consistency of mix:	fluid
Density of mix :	1,040 – 1,055 kg/m³
Viscosity of mix :	190 mPa·s (# 1 – 20 rpm)
Workability time:	15 - 20 min
Application temperature (refers to ambient, material and substrate):	from +10°C to +30°C
Overcoating time:	min. 6 h – max. 24 h
Tack-free:	40 minutes

FINAL PERFORMANCE (at +23°C and 50% R.H.)	
Abrasion resistance (Taber Abrasimeter) (CS 17 wheel– 1,000 g – 1,000 revs) (EN ISO 5470-1):	22 mg
Dust dry:	40 minutes
Set to foot traffic:	6-7 hours
Final hardening time:	12 hours
Glossiness (EN ISO 2813):	Gloss 50
Reaction to fire class (EN 13501-1):	B_{FL}-s1

MAPEFLOOR FINISH 54 W/S applied on Mapefloor System 33

Essential characteristics	Test method	Requirements according to EN 13813 for synthetic resin screeds	Typical values
BCA wear resistance:	EN 13892-4	≤ AR6	AR0.5
Bond strength:	EN 13892-8	≥ B1.5	B2.0
Impact strength:	EN ISO 6272	≥ IR4	IR20
Reaction to fire class:	EN 13501-1	from $A1_{FL}$ to F_{FL}	B_{FL}-s1

MAPEFLOOR FINISH 54 W/S applied on Mapefloor System 53

Essential characteristics	Test method	Requirements according to EN 13813 for synthetic resin screeds	Typical values
BCA wear resistance:	EN 13892-4	≤ AR6	AR0.5
Bond strength:	EN 13892-8	≥ B1.5	B2.0
Impact strength:	EN ISO 6272	≥ IR4	IR20
Reaction to fire class:	EN 13501-1	from $A1_{FL}$ to F_{FL}	B_{FL}-s1
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 (not permeable to water vapour)	Class I

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 water-based, aliphatic, transparent satin polyurethane finishing (such as **Mapefloor Finish 54 W/S** by MAPEI S.p.A.), to be applied on new or existing resin systems (such as **Mapefloor System 33** and **Mapefloor System 53** by MAPEI S.p.A.) or cementitious systems, even decorative (such as **Ultratop**, **Ultratop Living** and **Ultratop Loft** by MAPEI S.p.A.) to improve their wear resistance and facilitate cleaning operations. 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 characteristics:

Mixing ratio by volume:	comp. A : comp. B = 10 : 1
Density of the mix:	1,040 - 1,055 kg/m^3
Taber abrasion resistance (CS17 wheel – 1,000 g – 1,000 rev) (EN ISO 5470-1):	22 mg
Glossiness (EN ISO 2813):	Gloss 50
Reaction to fire class (EN 13501-1):	B_{FL}-s1

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2100-5-2026 en (IT)

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