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MAPEFLOOR FINISH 54 W/S

Two-component, aliphatic, transparent, satin polyurethane finish in water dispersion with no NMP for protecting resin and cementitious flooring



WHERE TO USE

Due to its excellent characteristics and extremely simple installation procedure, **Mapefloor Finish 54 W/S** is recommended as a finishing coat to improve resistance to wear and streaking on floors made using the **Mapefloor System** range, of cementitious flooring made using **Ultratop** and **Ultratop Living**, and cementitious coatings made using **Ultratop Loft**.

Some application examples

- Finishing coat on self-levelling resin floors such as **Mapefloor System 33** and **Mapefloor System 53** in commercial and residential environments and in the services sector.
- Finishing coat on cementitious flooring and coatings made using **Ultratop**, **Ultratop Living** or **Ultratop Loft**, in commercial and residential environments.

TECHNICAL CHARACTERISTICS

Mapefloor Finish 54 W/S is a two-component, aliphatic, transparent, satin polyurethane finishing product with no NMP, very low emission of volatile organic compounds (VOC) and high resistance to wear and abrasion, according to a formula developed in the MAPEI R&D laboratories.

For limited periods, **Mapefloor Finish 54 W/S** is highly resistant to medium concentration acid and basic solutions, as well as to mineral oils.

Mapefloor Finish 54 W/S is applied with a roller or by airless spray in coats from 60 to 100 microns thick.

Once the product has hardened, treated surfaces have better surface mechanical characteristics, in particular lower absorption and higher resistance to wear and streaking.

Mapefloor Finish 54 W/S has the following characteristics:

- excellent resistance to abrasion to the marks left by rubber wheels;
- available in the transparent satin version.

RECOMMENDATIONS

- Do not apply the product at a rate of more than 100 g/m² in a single coat. Higher rates may cause defects in the coating.
- Do not apply **Mapefloor Finish 54 W/S** on dusty, crumbling or irregular substrates.
- Do not apply **Mapefloor Finish 54 W/S** on wet surfaces or surfaces soaked in oil or grease.
- If the finish is applied in several coats, do not exceed the maximum time permitted before painting to guarantee a good bond with the coating. If this time is exceeded, the surface must be mechanically roughened before applying the next coat.

APPLICATION PROCEDURE

Preparation of the substrate

Resin coatings:

Mapefloor Finish 54 W/S may be applied on both new and old resin coatings.

If the product is applied on new resin coatings, the resin must be perfectly dry, well-cured and applied within the last 24 hours.

If more than 24 hours have elapsed since application, the surface of the resin must be sanded with a single-head brush with fine sandpaper (80-100 grain) or an abrasive pad to guarantee that the product bonds well.

If **Mapefloor Finish 54 W/S** is applied on old resin coatings, the surface of the resin must be perfectly clean and free of oil, grease and/or any other type of pollutant. Sand the entire surface of the resin to guarantee that the product forms a good bond with the substrate.

Cementitious coatings of the **Ultratop** range:

If **Mapefloor Finish 54 W/S** is applied on substrates made using **Ultratop**, **Ultratop Living** or **Ultratop Loft**, these have to be prepared with a light sanding and, after that, the dust must be removed with a vacuum cleaner and a base coating made using **Ultratop Base Coat** must be applied. For the use of this product, please refer to the relevant Technical Data Sheet.

Mapefloor Finish 54 W/S may be applied on the surface to be treated only after **Ultratop Base Coat** has completely cured (approx. 3 hours at +23°C).

Preparation of the product

Mapefloor Finish 54 W/S is a polyurethane finishing product made up of two pre-dosed components.

To prepare the product, mix component A with component B at a ratio of 10:1 by weight with a low-speed electric mixer until they are thoroughly blended.

We recommend preparing only the amount which may be applied within the maximum workability time.

If a non-slip finish is required on **Mapefloor Finish 54 W/S**, add **Mapefloor Filler** while mixing continuously at a rate of 3-5% by weight. When using **Mapefloor Filler**, we recommend to continue mixing also during the time required to complete the application of the finish in order to avoid the sedimentation of the 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** in an even coat using a short-haired roller (such as mohair) on cementitious surfaces made using **Ultratop**, **Ultratop Living** and **Ultratop Loft** or by airless spray on resin coatings such as **Mapefloor System 33** and **Mapefloor System 53**.

If a second coat is required, it may be applied after sanding the first coat.

CLEANING

Tools used to prepare and apply **Mapefloor Finish 54 W/S** must be cleaned immediately after use with plenty of running water. Once hardened, the product may only be removed mechanically.

CONSUMPTION

0.1-0.2 kg/m² according to the grade of finish required to the coating.

PACKAGING

Component A: 5.0 litres.

Component B: 0.5 litres.

STORAGE

Store the product in a dry, covered place at a temperature of between +12°C and +25°C. The shelf-life of the product in these conditions is 12 months.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapefloor Finish 54 W/S component A is not considered dangerous according to the current regulations regarding the classification of mixtures.

Mapefloor Finish 54 W/S component B is irritant for the respiratory tract and can cause sensitization if it comes in contact with the skin of those sensitive to isocyanates. Furthermore, it is harmful if inhaled.

During use wear protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin wash immediately with plenty of water and seek medical attention. Use a suitable device for protecting the respiratory tract.

Furthermore, **Mapefloor Finish 54 W/S** component B is dangerous for aquatic life, do not dispose of it in the environment. For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet.

RESTRICTED TO PROFESSIONAL USERS.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	component A	component B
Colour:	transparent	transparent
Appearance:	liquid	liquid
Density (g/cm ³):	1.03	1.12
Brookfield Viscosity (mPa·s):	90 (# 1 - 20 rpm)	390 (# 1 - 10 rpm)
Dry solid content (%):	27	70
APPLICATION DATA (at +23°C - 50% R.H.)		
Maximum dilution rate:	10% with clean water	
Mixing ratio:	comp A : comp B = 10 : 1	
Colour of mix:	transparent	
Consistency of mix:	fluid	
Dry substances content (3 hours - 105°C) (%):	33	
Density of mix (kg/m ³):	1,040	
Viscosity of mix (mPa·s):	190 (# 1 - 20 rpm)	
Workability time:	15 ÷ 20 min. at +23°C	
Surface temperature:	from +12°C to +30°C	
Waiting time before painting:	from 3 to 5 hours	
Time before sanding:	after 12 hours	
Set to the touch:	40 minutes	
FINAL PERFORMANCE		
Abrasion resistance (Taber test) (CS 17 disk - 1000 g - 1000 revs) (mg):	22	
Dust dry at +23°C and 50% R.H.:	40 minutes	
Set to light foot traffic at +23°C and 50% R.H.:	6-7 hours	
Final hardening time:	12 hours at +23°C	
Gloss factor:	50	

MAPEFLOOR FINISH 54 W/S on Mapefloor System 33				
Performance characteristic	Test method	Requirements according to UNI EN 13813 for synthetic resin screeds	Performance of product	Class
BCA wear resistance (μm):	UNI EN 13892-4	≤ 100	10	AR0.5
Bond strength (N/mm^2):	UNI EN 13892-8; 2004	≥ 1.5	3.43	B2.0
Impact strength (Nm):	UNI EN ISO 6272	≥ 4	20	IR20
Reaction to fire:	EN 13501-1	from A ₁ FL to F _{FL}	B _{FL} -s1	B _{FL} -s1
Emission of corrosive substances:		Type of resin		SR
MAPEFLOOR FINISH 54 W/S on Mapefloor System 53				
Performance characteristic	Test method	Requirements according to UNI EN 13813 for synthetic resin screeds	Performance of product	Class
BCA wear resistance (μm):	UNI EN 13892-4	≤ 100	0	AR0.5
Bond strength (N/mm^2):	UNI EN 13892-8; 2004	≥ 1.5	3.14	B2.0
Impact strength (Nm):	UNI EN ISO 6272	≥ 4	20	IR20
Reaction to fire:	EN 13501-1	from A ₁ FL to F _{FL}	B _{FL} -s1	B _{FL} -s1
Emission of corrosive substances:		Type of resin		SR
Permeability to water vapour:	EN ISO 7783-1-2	Class I: $S_D < 5 \text{ m}$ (permeable to water vapour) Class II: $5 \text{ m} \leq S_D \leq 50 \text{ m}$ Class III: $S_D > 50 \text{ m}$ (not permeable to water vapour)	$S_D = 1.69 \text{ m}$	Class I

MAPEFLOOR FINISH 54 W/S - Chemical resistance table			
Chemical agent	Temperature	Contact time	Level of chemical resistance 1 = minimum 5 = maximum
Acetone	+20°C	10 seconds	5
Vinegar	+20°C	1 hour	5
Ammoniac (1%)	+20°C	1 hour	5
Ammoniac (10%)	+20°C	1 hour	5
Ethyl alcohol (90%)	+20°C	1 hour	4
Ethyl alcohol (10%)	+20°C	16 hours	5
Coffee	+40°C	16 hours	3

Extra virgin oil	+20°C	16 hours	5
Distilled water	+20°C	16 hours	5
Water and salt (15%)	+20°C	16 hours	5

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

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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.

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