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MAPEFLOOR FINISH 53 W/L

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



WHERE TO USE

Thanks to its excellent characteristics and easy application procedure, **Mapefloor Finish 53 W/L** is recommended as a finishing coat to improve the 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 53 W/L is a two-component, aliphatic, transparent, gloss polyurethane finish 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 53 W/L** is highly resistant to medium concentration acid and alkali solutions, as well as to mineral oils.

Apply **Mapefloor Finish 53 W/L** with a roller or by airless spray in coats from 60 to 100 microns thick.

When hardened, the product improves the mechanical characteristics of the treated surface, and in particular guarantees less water absorption, high resistance to abrasion and streaks.

Mapefloor Finish 53 W/L has the following characteristics:

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

RECOMMENDATIONS

- Do not apply more than 100 g/m² of the product per coat. Larger quantities could cause defects in the coating.
- Do not apply **Mapefloor Finish 53 W/L** on dusty, crumbling or weak substrates.
- Do not apply **Mapefloor Finish 53 W/L** on wet surfaces or on surfaces contaminated with oil or grease.
- 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 last layer must be abraded mechanically before applying the next one.

APPLICATION PROCEDURE

Preparation of the substrate

Resin coatings:

Mapefloor Finish 53 W/L may be applied on both new and old resin coatings.

If the product is applied on new resin coatings, they must be hard, dry and have been applied no more than 24 hours previously.

If more than 24 hours have elapsed, resin coatings must be sanded with a single-head brush with 80-100 grade sandpaper or a fine-grained abrasive pad to guarantee the product adheres well.

If **Mapefloor Finish 53 W/L** is applied on old resin coatings, on the other hand, they must be perfectly clean and free of all traces of oil, grease and/or any other type of pollutant. Always sand the entire surface to guarantee good adhesion between the product and the substrate.

Cementitious coatings of the **Ultratop** range:

If **Mapefloor Finish 53 W/L** 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 53 W/L 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 53 W/L is a polyurethane finish made from two, pre-measured components.

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

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

If a non-slip surface finish is required to **Mapefloor Finish 53 W/L**, add 3-5% by weight of **Mapefloor Filler** while mixing.

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 53 W/L** evenly using a short-haired roller, such as mohair, on cementitious surfaces made using **Ultratop**, **Ultratop Living** and **Ultratop Loft** or by airless spray over 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

Clean tools used to prepare and apply **Mapefloor Finish 53 W/L** immediately after use with plenty of running water. Once hardened, the product may only be removed mechanically.

CONSUMPTION

0.1-0.2 kg/m², depending on the grade of finish required to the coating.

PACKAGING

Component A: 5.0 litres.

Component B: 0.5 litres.

STORAGE

Store in a covered, dry place at a temperature of between +12°C and +25°C. The product may be stored up to 12 months in such conditions.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapefloor Finish 53 W/L component A is not considered dangerous according to the current regulations regarding the classification of mixtures.

Mapefloor Finish 53 W/L 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 53 W/L** 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 solids 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 solids content (%) (3 h - 105°C):	33	
Density of mix (kg/m ³):	1,040	
Viscosity of mix (mPa·s):	190 (# 1 - 20 rpm)	
Workability time:	15-20 mins. at +23°C	
Surface temperature:	from +12°C to +30°C	
Waiting time before painting:	from 3 to 5 h	
Time before sanding:	after 12 hours	
Set to the touch:	40 mins.	
FINAL PERFORMANCE		
Abrasion resistance (Taber abrasimeter) (CS 17 disk - 1000 g - 1000 revs) (mg):	22	
Dust dry at +23°C and 50% R.H.:	40 mins.	
Set to light foot traffic at +23°C and 50% R.H.:	6-7 h	
Final hardening time:	12 h at +23°C	

Gloss factor:		80		
MAPEFLOOR FINISH 53 W/L on Mapefloor System 33				
Performance characteristic	Test method	Requirements according to UNI EN 13813 for synthetic resin-based screeds	Performance of product	Class
BCA wear resistance (μm):	EN 13892-4	≤ 100	10	AR0.5
Adhesion strength (N/mm^2):	EN 13892-8; 2004	≥ 1.5	3.43	B2.0
Impact strength (Nm):	EN ISO 6272	≥ 4	20	IR20
Reaction to fire:	EN 13501-1	from A _{1FL} to F _{FL}	B _{FL} -s1	B _{FL} -s1
Emission of corrosive substances:		Type of resin		SR
MAPEFLOOR FINISH 53 W/L on Mapefloor System 53				
Performance characteristic	Test method	Requirements according to UNI EN 13813 for synthetic resin-based screeds	Performance of product	Class
BCA wear resistance (μm):	EN 13892-4	≤ 100	0	AR0.5
Adhesion strength (N/mm^2):	EN 13892-8; 2004	≥ 1.5	3.14	B2.0
Impact strength (Nm):	EN ISO 6272	≥ 4	20	IR20
Reaction to fire:	EN 13501-1	from A _{1FL} 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: $S_D < 5$ 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)	$S_D = 1.69$ m	Class I

MAPEFLOOR FINISH 53 W/L - 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 h	5
1% ammonia	+20°C	1 h	5
10% ammonia	+20°C	1 h	5
90% ethanol	+20°C	1 h	4
10% ethanol	+20°C	16 h	5

Coffee	+40°C	16 h	3
Extra virgin olive oil	+20°C	16 h	5
Distilled water	+20°C	16 h	5
15% water and salt	+20°C	16 h	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 most up-to-date TDS can be downloaded from our website www.mapei.com.

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