



# Mapefloor Finish 451

**Two-component,  
aliphatic, elastic  
coloured polyurethane  
finish resistant to  
wear and UV rays**



## WHERE TO USE

Thanks to its flexibility, extremely simple application procedure and high resistance to abrasion and UV rays, **Mapefloor Finish 451** is recommended as a protective finish for **Mapefloor PU 400** or **Mapefloor PU 400 LV** and/or **Mapefloor PU 410** floor coverings used to protect and waterproof flat and sloping external surfaces for pedestrian and vehicle use.

## Some application examples

- Protective, wear-resistant finish for external waterproofing systems made using **Mapefloor PU 400** or **Mapefloor PU 400 LV**, and **Mapefloor PU 410** membranes after broadcasting them with quartz sand.
- Coloured finish for bridges and walkways after applying flexible polyurethane waterproofing membranes.

## TECHNICAL CHARACTERISTICS

**Mapefloor Finish 451** is a two-component, aliphatic, elastic polyurethane finish that offers high resistance to wear, abrasion and UV rays. Surfaces treated with **Mapefloor Finish 451** also have an attractive finish. **Mapefloor Finish 451** has the following characteristics:

- good level of elasticity;
- high resistance to wear and abrasion;

- excellent resistance to UV rays;
- excellent resistance to atmospheric agents;
- available in colours RAL. For the complete range of colours please contact MAPEI Head Office.

Thanks to its high resistance to UV rays and atmospheric agents, **Mapefloor Finish 451** is ideal for use in external environments.

## RECOMMENDATIONS

- Workability of the product is influenced by the surrounding temperature and the temperature of the substrate. Workability time varies according to the surrounding temperature and reduces as the temperature increases. We recommend, therefore, that only the quantity required within the maximum workability time (approximately 40 minutes at +23°C) is prepared.
- Do not apply **Mapefloor Finish 451** if the moisture content in the substrate is higher than 4%.
- Only apply **Mapefloor Finish 451** if the temperature of the substrate is at least 3°C higher than the dew-point temperature.
- Protect the product from water for at least 24 hours after application.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

	comp. A	comp. B
<b>Colour:</b>	RAL colour	transparent, colourless
<b>Appearance:</b>	liquid	liquid
<b>Brookfield viscosity at +23°C (mPa·s):</b>	6,000 ± 9,000 (rotor 6 - 50 revs)	540 ± 50 (rotor 2 - 50 revs)
<b>Density (g/cm<sup>3</sup>):</b>	1.63 ± 0.05	1.1 ± 0.05

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

<b>Mixing ratio:</b>	comp. A : comp. B = 70 : 30
<b>Colour of mix:</b>	RAL colour
<b>Consistency of mix:</b>	fluid paste
<b>Density of mix (kg/m<sup>3</sup>):</b>	1,480
<b>Viscosity of mix (mPa·s):</b>	1,500 ± 200 (rotor 4 - 50 revs)
<b>Pot life at +23°C:</b>	40 mins.
<b>Dust dry at +23°C, 150 microns on glass:</b>	90 mins.
<b>Application temperature:</b>	from +10°C to +30°C
<b>Set to foot traffic at +23°C:</b>	24 h
<b>Final hardening time at +23°C:</b>	3 days

### FINAL PERFORMANCE

<b>Maximum deformation after 7 days at +23°C + 14 days at +50°C (%):</b>	43
<b>Tear strength after 7 days at +23°C + 14 days at +50°C (N/mm):</b>	97
<b>Tensile strength after 7 days at +23°C + 14 days at +50°C (N/mm<sup>2</sup>):</b>	12.2
<b>Taber abrasion resistance (CS17 disk - 1000 g - 1000 revs) after 7 days at +23°C (mg):</b>	150
<b>Shore A hardness:</b>	85

## APPLICATION PROCEDURE

### Substrate preparation

Substrates with a polyurethane waterproofing membrane

Substrates to be coated must be structurally sound and free of loose parts, dust, dirt, grease, oil and any other material or substance that could compromise adhesion of the finish to the substrate.

**Mapefloor Finish 451** must only be applied on **Mapefloor PU 400** or **Mapefloor PU 400 LV**, or on **Mapefloor PU 410** once they have hardened, and only after the surface has been broadcasted with quartz sand and any excess sand has been removed.

### Preparation of the product

Mix the two components separately with an electric mixer at low speed. Then pour component B into the container of component A and mix for several minutes until they are completely blended.

Only prepare the quantity required within the maximum workability time (approximately 40 minutes at +23°C).

### Application of the product

**Mapefloor Finish 451** may be applied in a single coat with a roller or with a smooth steel or rubber trowel. If the finish is applied with a roller, we recommend applying the product with criss-cross strokes and to make sure that it is applied evenly to get a good, attractive finish. If the finish is applied with a rubber trowel, consumption will be lower and the surface will be rougher.

### Cleaning

Tools used to mix and apply the product may be cleaned with thinners for polyurethane before it hardens. Once hardened, it may only be removed mechanically.

### CONSUMPTION

Consumption depends on the roughness of the substrate, the surrounding temperature and the type of tool used to apply the product. The figures indicated are for application on a substrate at a temperature between +15°C and +25°C. Lower temperatures increase the consumption rate and hardening time of the product.

Theoretical consumption: 0.6-0.8 kg/m<sup>2</sup> (we recommend carrying out preliminary tests to verify the true consumption rates of the product).

### PACKAGING

Component A: 14 kg.  
Component B: 6 kg.

### STORAGE

Store the product in a covered, dry place

at a temperature of between +15°C and +25°C. The product may be stored for 12 months in such conditions.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Mapefloor Finish 451** component A may cause sensitisation if it comes in contact with the skin of predisposed subjects.

**Mapefloor Finish 451** component B is inflammable; we recommend storing it away from naked flames and sparks, to avoid smoking, to prevent the build-up of electrostatic energy and to work only in well-ventilated areas.

Furthermore, it is irritant for the eyes, the skin, it may cause sensitisation if it comes in contact with the skin of subjects sensitive to isocyanates, it is dangerous if inhaled and it may irritate the respiratory tract. 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 clean water and seek medical attention. It is recommended to wear suitable protection for the respiratory system.

Furthermore, **Mapefloor Finish 451** component A 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 Material Safety Data Sheet.

PRODUCT ONLY FOR PROFESSIONAL USE.

### 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)**

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**

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2180-7-2016 (GB)