



NEW

Mapecolor PU 410



**Two-component,
neutral-coloured,
self-levelling, flexible
polyurethane filling
binder**

WHERE TO USE

Solvent-free, two-component, medium-flexibility polyurethane resin-based flooring system with crack-bridging, with low viscosity and good wear resistance. Suitable for internal and external applications on floors in multi-storey car-parks and garages.

Thanks to its special formulation, **Mapecolor PU 410** is used in the **Mapecolor Parking System** as a wear-resistant coating for the intermediate **Mapecolor PU 400** layer, within 24 hours of application.

TECHNICAL CHARACTERISTICS

Mapecolor PU 410 is a two-component, polyurethane resin-based filler treatment, made according to a special formula developed in MAPEI's own research laboratories.

Mapecolor PU 410 is highly resistant to the formation of cracks in concrete, even at temperatures as low as -20°C.

Mapecolor PU 410 also contains good mechanical strength.

Sprinkling quartz sand on **Mapecolor PU 410** increases its anti-wear properties, and leaves a slip-resistant finish on the surface.

RECOMMENDATIONS

- Do not apply **Mapecolor PU 410** on substrates without primer with a moisture level higher than 4%, or on those which are subject to rising damp (consult our Technical Department).
- Do not dilute **Mapecolor PU 410** with solvents or water.

- Do not apply **Mapecolor PU 410** on dusty or crumbly substrates.
- Do not apply **Mapecolor PU 410** on substrates which have traces of oil, grease and dirt in general.
- Do not mix partial quantities of the components, in order to avoid mistakes in the blending ratios. The product may not set correctly.
- Once blended, do not expose the product to sources of heat.

APPLICATION PROCEDURE

Mapecolor PU 410 may be used for the following applications:

- as an intermediate anti-wear layer in the **Mapecolor Parking System**;
- as a flexible multi-layer flooring;
- as a flexible self-levelling flooring.

1. Intermediate wear layer in the **Mapecolor Parking System** coating

- Within 24 hours of applying the flexible **Mapecolor PU 400** layer, spread on **Mapecolor PU 410** prepared beforehand, add **Mapecolor Paste** and mix with a low-speed drill to avoid the entrapment of air (for each 18.5 kg sack of **Mapecolor PU 410**, add 1.4 kg of coloured paste according to the colour required). Continue mixing for a few minutes until a lump-free, homogenous mix is obtained. Add 30% by weight of **Quartz 0.25** while still mixing until a homogenous mix is obtained.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	component A	component B
Colour:	neutral	straw-coloured
Appearance:	viscous liquid	viscous liquid
Density (g/cm³):	1.2	1.2
Viscosity at +23°C (mPa·s):	9,600 (# 5 - rpm 10)	15-30
Storage:	6 months in its original, unopened packaging	
Hazard classification according to EC 1999/45:	irritant	harmful Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet
Customs class:	3909 50 90	
APPLICATION DATA (at +23°C and 50% R.H.)		
Mixing ratio:	component A : component B : = 81 : 19	
Colour of mix:	neutral	
Consistency of the mix:	fluid	
Pot life at +20°C:	41 minutes	
Application temperature range:	from +8°C to +35°C	
FINAL PERFORMANCES (at +23°C and 50% R.H.)		
Dust dry:	2-4 hours	
Set to light foot traffic:	24 hours	
Final hardening time:	7 days	
Elongation (DIN 53504) (%):	approximately 180	
Shore A hardness after 28 days:	89	

- Pour the product onto the floor and spread it out evenly on the surface to be treated with a smooth trowel. While the product is still fresh, pass over the layer with a spiked roller.

As soon as the product has been applied, and while still fresh, saturate it with quartz sand with a grain size of 0.1-0.5 mm or 0.3-0.9 mm, according to the degree of non-slip finish required (approximately 4 kg/m²).

- When the product has hardened, remove the excess sand, sandpaper the surface and remove the dust with a heavy-duty vacuum cleaner.
- Apply a finishing layer of **Mapefloor Finish 51** mixed beforehand, with 10% of **Mapecolor Paste** colouring paste. Mix with a low-speed drill fitted with a spiral mixing attachment until a homogenous mix is obtained. Apply the mix uniformly and continuously using a smooth rake followed by a medium-haired roller, making sure that the roll strokes criss-cross over each other to obtain a defect-free surface.

2. 1.5-3 mm-thick multi-layer, flexible non-slip coating

• Preparation of the substrate

The surfaces to be treated must be smooth, clean and dry and must not be subject to rising damp. The screed of the substrate must be strong enough to withstand the loads foreseen when in service. Cement laitance present on the surface to be treated must be eliminated mechanically. Before applying **Mapefloor PU 410**, any dust present on the substrate must be completely removed.

- After carefully preparing the substrate, apply **Primer SN** mixed with 0.4 parts of **Quartz 0.5**, making sure that it is applied evenly with a flat trowel or smooth rake. Immediately after application, the fresh surface of **Primer SN** must be sprinkled with **Quartz 0.5** to guarantee perfect bonding of the successive resin coating.
- When the product has hardened, remove the excess sand with a vacuum cleaner and carefully mix the **Mapefloor PU 410**, add the **Mapecolor Paste** colouring paste and mix with a low-speed drill to avoid entrapment of air (for each 18.5 kg sack of **Mapefloor PU 410**, add 1.4 kg of coloured paste according to the colour required). Continue mixing for a few minutes until a lump-free, homogenous mix is obtained. Add 30% by weight of **Quartz 0.5** while still mixing until a homogenous mix is obtained, and spread the product evenly on the surface to be treated.
- While the surface of **Mapefloor PU 410** is still fresh, sprinkle with **Quartz** sand with a grain size of 0.1-0.5 mm or 0.3-0.9 mm (according to the degree of non-slip required) until saturated.
- When the product has hardened, remove the excess sand, sandpaper the surface and remove the dust with a heavy-duty vacuum cleaner.

- Apply a finishing layer of **Mapefloor Finish 51** mixed beforehand, with 10% of **Mapecolor Paste** colouring paste. Mix with a low-speed drill fitted with a spiral mixing attachment until a homogenous mix is obtained. Apply the mix uniformly and continuously using a smooth rake followed by a medium-haired roller, making sure that the roll strokes criss-cross over each other to obtain a defect-free surface.

3. 2-3 mm-thick self-levelling flexible coating

• Preparation of the substrate

The surfaces to be treated must be smooth, clean and dry and must not be subject to rising damp. The screed of the substrate must be strong enough to withstand the loads foreseen when in service. Cement laitance present on the surface to be treated must be removed mechanically.

- After carefully preparing the substrate, apply **Primer SN** mixed with 0.4 parts of **Quartz 0.5**, making sure that it is applied evenly with a flat trowel or smooth rake. Immediately after application, the fresh surface of **Primer SN** must be sprinkled with **Quartz 0.5** (approximately 1 kg/m²) to guarantee perfect bonding of the successive resin coating.
- When the product has hardened, remove the excess sand and carefully mix the **Mapefloor PU 410**, add the **Mapecolor Paste** colouring paste and mix with a low-speed drill to avoid entrapment of air (for each 18.5 kg sack of **Mapefloor PU 410**, add 1.4 kg of coloured paste according to the colour required). Continue mixing for a few minutes until a lump-free, homogenous mix is obtained. Add 30% by weight of **Quartz 0.25** while still mixing until a homogenous mix is obtained. Pour the product on the floor and spread it out evenly and homogeneously using a 5 mm-pitch notched trowel.
- Pass over the surface while still fresh using a spiked roller to even out the thickness, and to help remove all the air trapped in the mix during preparation.
- When the product has hardened, apply a finishing layer of **Mapefloor Finish 51** mixed beforehand, with 10% of **Mapecolor Paste** colouring paste. Mix with a low-speed drill fitted with a spiral mixing attachment until a homogenous mix is obtained. Apply the mix uniformly and continuously using a medium-haired roller, making sure that the roll strokes criss-cross over each other to obtain a defect-free surface. If only a light non-slip finish is required, add 3-10% of **Mapefloor Filler**.

N.B.: *the examples described above are for indication purposes only. The amount of **Primer SN** required may vary according to the surrounding temperature. At low temperatures, the amount required may be less, while at higher temperatures, the amount required may be more.*

CONSUMPTION

1. As an intermediate anti-wear layer in the **Mapefloor Parking System**

- **FIRST COAT**
 - **Mapefloor PU 410** 1 kg/m²
 - **+ Mapecolor Paste**
 - mixed with **Quartz 0.25** 0.3 kg/m²
 - Sprinkling of quartz 0.1-0.5 4.0 kg/m²
- **FINISH**
 - **Mapefloor Finish 51** 0.200 kg/m²
 - **+Mapecolor Paste**

2. As a 1.5-3 mm-thick multi-layer, flexible non-slip coating

- **FIRST COAT**
 - **Primer SN** 0.700 kg/m²
 - Sprinkling of **Quartz 0.5** while still fresh 3 kg/m²
- **INTERMEDIATE LAYER**
 - **Mapefloor PU 410 + Mapecolor Paste** 0.9 kg/m²
 - mixed with **Quartz 0.5** 0.27 kg/m²
 - Sprinkling of quartz 0.1-0.5 while still fresh 3 kg/m²
- **FINISH**
 - **Mapefloor Finish 51** 0.200 kg/m²
 - **+Mapecolor Paste**

3. As a 2-3 mm-thick self-levelling, flexible coating

- **FIRST COAT**
 - **Primer SN** 0.700 kg/m²
 - Sprinkling of **Quartz 0.5** while still fresh 0.5 kg/m²
- **INTERMEDIATE LAYER**
 - **Mapefloor PU 410** 4 kg/m²
 - (including **Quartz 0.25**)
 - **+Mapecolor Paste**
- **FINISH**
 - **Mapefloor Finish 51** 0.200 kg/m²
 - **+Mapecolor Paste**

PACKAGING

18.5 kg kits:
– component A = 15 kg;
– component B = 3.5 kg.

STORAGE

6 months in its original packaging at a temperature of between +10°C and +30°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapefloor PU 410 component A may irritate, while component B is harmful if inhaled and may cause allergic reactions in those subjects sensitive to isocyanates.

While using the products, we recommend protecting the respiratory system and the use of protective gloves and goggles. Only apply the product in well-ventilated areas.

Seek medical attention in the event of accidents or giddiness.

For further information, please refer to the Safety Data Sheet.

FOR PROFESSIONAL USERS.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

All relevant references for the product are available upon request and from www.mapei.com