MAPEFLOOR BINDER 930

One-component aliphatic polyurethane binder for decorative floors





DESCRIPTION

Mapefloor Binder 930 is a one-component, moisture-curing, transparent, non-yellowing, aliphatic polyurethane binder developed in the MAPEI R&D laboratories.

It is used mixed with natural aggregates, such as marble, natural stone or quartz, to create highly attractive draining floorings for indoor and outdoor spaces.

TECHNICAL CHARACTERISTICS

Mapefloor Binder 930, mixed with clean and dry natural aggregates in the correct mixing ratio by weight, provides resin screed systems having the following characteristics:

- excellent aesthetic and decorative appearance;
- excellent resistance to weathering;
- non-yellowing, suitable for outdoor applications;
- excellent draining property of rainwater;
- high resistance to foot traffic and wear in general;
- resistance to de-icing salts.

ADVANTAGES

- Possibility of creating countless aesthetic effects, using aggregates of variable nature, colour and grain size.
- Easy to use.
- Ideal for outdoor surfaces.
- Easy draining of rainwater.

WHERE TO USE

Mapefloor Binder 930 is mixed with suitable aggregates of variable nature, colour and grain size such as marble, natural stone and quartz, to create decorative drain floors with countless possibilities aesthetic aspect and drawings, in situations such as:

- street furniture, squares, avenues, sidewalks;

- terraces, balconies, walkways and porches;
- decorative draining resin systems around swimming pools;
- indoor environments such as showrooms, cshops or dealers.

RECOMMENDATIONS

- Do not apply **Mapefloor Binder 930** on dusty, crumbly or unsound substrates.
- Do not apply **Mapefloor Binder 930** on wet surfaces.
- Do not apply **Mapefloor Binder 930** on substrates contaminated by oil or grease stains or dirt in general.
- Do not dilute **Mapefloor Binder 930** with solvent or water.
- Do not apply **Mapefloor Binder 930** to substrates that have not been properly primed.
- The temperature of the substrate during application and hardening process must be at least 3°C higher than the dew point. The relative humidity of the air must be max. 70%.
- Do not apply **Mapefloor Binder 930** if it is about to rain. Protect the product from water for at least 24 hours after application.
- Do not exceed the recommended dosage of **Mapefloor Binder 930**. . If too much binder is used, some unesthetic issues on the surface may be possible.
- Resin screeds made with **Mapefloor Binder 930** are not suitable for heavy vehicular traffic.
- Make sure the aggregates are perfectly clean and dry. If they are even slightly damp, blisters and/or foam could form in the resinous binder.

APPLICATION PROCEDURE

Preparation of the substrate

The surface of concrete flooring must be clean and sound and have no crumbling or detached areas. The compressive strength of concrete substrates must be at least 25 N/mm² and their tensile strength must be at least 1.5 N/mm². The substrate must also be strong enough for its final intended use and to withstand the types of loads acting on the floor. The surface of the floor to be treated must be prepared with a suitable mechanical process (e.g. shot blasting or grinding with a diamond disc) to remove all traces of dirt, cement laitance and crumbling or detached portions, and to make the surface slightly rough and absorbent. Any cracks, holes or surface irregularities must be repaired and smoothed with **Primer SN** fillerized with quartz sand or made thixotropic with **Additix PE**, or **Mapefloor JA** or **Mapefloor JA Fast** depending on the width and depth of defects and cracks. To repair highly deteriorated areas and joints, fill large hollows and to create or slightly modify the slope in confined areas, use **Mapefloor EP19**, pre-dosed, three-component epoxy mortar.

Before applying the product, carefully vacuum off the dust from the surface.

Priming the substrate

The substrate must be previously treated with water-based epoxy primer **Mapecoat I 600 W** diluted with 50% by weight of water. Apply an even coat by roller then, on the still wet bsurface of the product, lightly broadcast with **Quartz 0.5**. For further application details of **Mapecoat I 600 W** please refer to the relevant technical data sheet.

Preparation of the product

Mix **Mapefloor Binder 930** with 2-4 mm pebbles from Mapei S.p.A.'s range of products, in the mixing ratio binder:aggregates of 1:20 by weight.

Mapefloor Binder 930 can also be used as a binder for other types of aggregates of different nature, shape and colour, depending on the project specifications required. In this case, it will be essential to carry out preliminary mixing tests to assess the correct binder:aggregate weight ratio according to the required end result and the relevant application methods.

Mix with a low-speed electric mixer with helix paddle or in a portable cement mixer.

Application of the mix

Spread the mortar of **Mapefloor Binder 930** and aggregates using rakes, straight-edges and screed rails or similar tools. Then compact and smooth the surface with a straight trowel or a vibro-compactor or power floater.

To make the smoothing operation easier, especially when finer aggregates are used, it is recommended to clean the trowel quite often with thinner for polyurethane to make the tool smoother on the screed surface.

Apply the mix when the ambient temperature is between +12°C and +30°C. If the ambient temperature is less than +12°C, please contact our Technical Services Department.

CLEANING

Clean tools used to prepare and apply **Mapefloor Binder 930** with thinners for polyurethane resins immediately after use. Once hardened, the product can only be removed mechanically.

CONSUMPTION

Approximately 0.8-1.0 kg/m² of **Mapefloor Binder 930** per cm of thickness of mortar, depending on the type and absorbency of the aggregates.

PACKAGING

5 kg buckets.

STORAGE

The product can be stored for 12 months in its original sealed packaging, in a dry place at a temperature no lower than +5°C. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

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	
Colour:	transparent colourless
Consistency:	liquid
Density:	1.15 g/cm³
Brookfield viscosity:	350-550 mPa·s (# 2 - rpm 20)
Dry substances content:	93%

APPLICATION DATA (at +23°C - 50% R.H.)	
Workability time:	70 min.
Set to light foot traffic (with care):	8 hours
Completely set to light foot traffic:	48 hours
Complete hardening:	7 days
Ambient application temperature:	from +12°C to +30°C
Mixing ratio by weight binder:aggregates (2-4 mm pebbles from Mapei S.p.A. range):	1:20

FINAL PERFORMANCE (mortar 1:20 with pebbles from Mapei S.p.A. range)	
Compressive strength at +23°C (EN 196-1):	
- after 3 days:	approx. 11 N/mm²
- after 7 days:	approx. 12 N/mm²
Flexural strength at +23°C (EN 196-1):	
- after 3 days:	approx. 4 N/mm²
- after 7 days:	approx. 5 N/mm²
Drainability (EN 12697):	73 L sec/m²
Fire reaction class (EN 13501-1):	B_{FL}-s1

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.

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. 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 draining screed system with attractive aesthetic aspect, high resistance to wear, non-yellowing, for interior and exterior spaces, made with resin mortar composed of one-component, transparent, moisture-hardening, non-yellowing aliphatic polyurethane binder (such as **Mapefloor Binder 930** by Mapei S.p.A.) and clean and dry natural aggregates 2-4 mm grain size (such as pebbles range from Mapei S.p.A.) mixed together at a mixing ratio binder:aggregates of 1:20 by weight.

The product must have the following characteristics:

Colour:	transparent, colourless
Consistency:	liquid
Set to light foot traffic (at +23°C - 50% R.H.):	8 h
Set to full foot traffic (at +23°C - 50% R.H.):	48 h
Complete hardening (at +23°C - 50% R.H.):	7 d

The product mixed with aggregates at mixing ratio 1:20 by weight must have the following final performance:

Compressive strength at +23°C (EN 196-1):	approx. 11 N/mm² (after 3 d)
	approx. 12 N/mm² (after 7 d)
Flexural strength at +23°C (EN 196-1):	approx. 4 N/mm² (after 3 d)

	approx. 5 N/mm² (after 7 d)
Drainability (EN 12697):	73 L sec/m²
Reaction to fire (EN 13501-1):	B_{FL}-s1

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