PU FLOOR 3D

Go to TDS

SELF LEVELING

ONE-COMPONENT ALIPHATIC POLYURETHANE BINDER FOR DECORATIVE FLOORING.

PRODUCT DESCRIPTION

PU Floor 3D is a one-component, moisture-curing, non-yellowing, transparent aliphatic polyurethane binder. When PU Floor 3D is mixed with clean, dry natural aggregates at the correct aggregate/binder ratio, it may be used to create surfaces with very high resistance to wear and yellowing. Preparation is very simple and consists of mixing assorted aggregates, such as marble, quartz or natural stone with particle size 2-4 mm or 4-8 mm with PU Floor 3D and then placing the mix to form a multitude of decorative effects. What is more, its excellent resistance to atmospheric agents means it may also be used for external applications, particularly for pervious surfaces. PU Floor 3D also resists the action of the most commonly used de-icing salts.

FIELD OF APPLICATION

PU Floor 3D is a one-component, moisture-curing, non-yellowing, transparent aliphatic polyurethane binder. When mixed with natural aggregates, such as marble, natural stone or quartz, it may be used to make pervious floorings for internal and external surroundings. When PU Floor 3D is mixed with monochrome or multi-colored assorted aggregates, it may be used to create unique flooring with an unlimited variety of patterns and aesthetic effects. PU Floor 3D may be used for the following:

· Street furniture, creating decorative surfacing for squares, avenues and sidewalks.

· Decorative resin surfacing for external surroundings such as terraces, balconies, walkways.

· Decorative pervious resin systems around swimming pools.

· Decorative flooring for internal surroundings such as showrooms, department stores and retail outlets.

Via Sorte, 2, 24030
Barzana BG, Italy

SUITABLE SUBSTRATES

· Concrete.

LIMITATIONS

· Do not apply on concrete within 10 days of pouring.
· Do not dilute with solvent or water.
· Do not apply on crumbling substrates.
· Do not apply on substrates with oil or grease stains or stains in general.
· Do not apply on substrates that have not been prepared according to specification.
· Do not mix partial quantities of the components. The product may not harden correctly.
· Do not expose the mixed product to sources of heat.
· Do not apply on ceramic substrates or stone in general.
· PU Floor 3D coatings change color if exposed to sunlight but no effect on performance.
· The coating may also change color if it comes into contact with aggressive chemicals.
· Remove aggressive chemicals as soon as possible if they come into contact with PU Floor 3D.
· Use suitable specific cleaning equipment and detergent to clean the coating.
· Protect coatings from water for at least 24 hours after application.
· The temperature of the substrate must be at least 3°C higher than the dew-point temperature.

APPLICATION PROCEDURE

A) Preparation of the substrate

The surface of concrete floors must be dry, clean and sound and have no crumbling or detached areas. The compressive strength of the concrete used for the substrate must be at least 25 N/mm² and its tensile strength must be at least 1.5 N/mm². The strength of the substrate must also be suitable for its final use and the types of load to which it will undergo. The level of moisture in the substrate must be a maximum of 4% and there must be no capillary rising damp. The surface of the floor to be treated must be prepared with a suitable mechanical process to remove all traces of dirt, cement laitance and crumbling or detached portions, and to make the surface slightly rough and absorbent. Before applying the product remove all dust from the surface with a vacuum cleaner. Any cracks must be repaired by filling them with Epoinject, while any deteriorated areas in the concrete must be repaired epoxy mortar. Apply primer as is or mixed with Quartz 0.5 on the substrate after it has been prepared as specified with a straight trowel or a rake. Immediately after applying primer, lightly broadcast the surface while still wet with Quartz 0.5 at a rate of 0.5 kg/m²; we advise against exceeding this consumption rate. Make sure there are no open pores in the surface of the substrate, otherwise air bubbles could escape and form small craters or pinholes in the self-leveling finishing coat.

B) Preparing the product

Mix PU Floor 3D one-component polyurethane binder with the aggregates selected for the mix natural stone, crushed marble or quartz, particle size 2-4 mm or 4-8 mm at a binder/aggregates ratio of 1 : 20 by weight. Aggregates must be perfectly clean and dry. Mix with a drill at low-speed with a spiral mixing attachment or in a traditional cement mixer.

C) Applying the product
Pour PU Floor 3D on the surface of the floor and spread it out evenly with a smooth or notched trowel with “V” shaped. Using a notched trowel allows the thickness of the layer and the consumption rate of the product to be controlled more easily. Go over the surface with a spike roller several times while the product is still wet to even out the thickness of the coat and to remove any air entrained into the product during mixing.

COVERAGE / CONSUMPTION

The consumption is approximately 0.8-1.2 kg/m2 at 1 mm thickness.

PACKAGING

PU Floor 3D is supplied in:
– 5 kg buckets Comp. A.

SHELF LIFE-STORAGE

Original sealed bags of this product are guaranteed to be of first quality for 24 months if stored off of the ground in a dry area. High humidity will reduce the shelf life of the bagged product.

SAFETY INSTRUCTION

PU Floor 3D irritates the eyes, skin and respiratory system. It is harmful if inhaled and may cause irreversible damage if used for long periods. It may also cause sensitisation if inhaled or if it comes in contact with the skin. 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.

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TECHNICAL DATA

TECHNICAL DATA (typical values)	
Colour	transparent, colourless
Consistency	liquid
Density (g/cm³)	1.15
Brookfield viscosity (mPa·s)	450
Dry solids content (%)	95
Application data (at +23°C and 50% R.H.)	
Workability time	70 mins
Set to light foot traffic (with care)	8 hours
Completely set to light foot traffic	48 hours
Complete hardening time	7 days
Surrounding application temperature	from +12°C to +30°C
Mixing ratio by weight binder/aggregates	1 : 20
Final performances	
Hardening time at +23°C and 50% R.H.:	
– dust dry:	3-5 hours
– set to foot traffic	24 hours
– complete hardening time	7 days
Shore D hardness (DIN 53505) after 7 days at +23°C and 50% U.R.:	75
Compressive strength after 7 days (EN 196-1) (N/mm²)	52
Flexural strength after 7 days (EN 196-1) (N/mm²)	20
BCA resistance to wear: EN 13892- 4	< 5 µm
Adhesion strength: EN 13892- 8; 2004	3.90 N/mm²
Impact strength: EN ISO 6272	20 Nm

EMISSION CLASS FOR BUILDING MATERIAL
M1

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DC INDUSTRIES

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