

ARMOFLOOR SLP

High Performance Self Levelling Polyurethane Topping

Description:

ARMOFLOOR SLP is a solvent free, high performance, polyurethane based self-leveling topping that provides a floor with seamless, water-tight, highly chemical and abrasion resistant and with attractive monolithic finish. It composed of tinted polyurethane base, hardener and selected graded filler.

ARMOFLOOR SLP is designed to provide tough, elastic, monolithic flooring to accommodate temperature changes and with decorative glossy finish.

ARMOFLOOR SLP is presented in two grades based on the thickness of application required:

ARMOFLOOR SLP 25 for thicknesses from 1.0 mm to 2.5 mm.

ARMOFLOOR SLP 50 for thicknesses from 2.0 mm to 4.0 mm.

Uses:

ARMOFLOOR SLP is utilized as a system at:

- Facilities such as laboratories and operation rooms.
- Cold storage facilities (vegetables and fruits, poultry, meat).
- Food and poultry processing factories.
- Pharmaceutical production areas.
- Playground for kids in kindergartens and play zones.
- Medical and pharmaceutical storage areas.
- Decorative flooring for seamless colourful floors.

Advantages:

- Smooth, impervious seamless floor, glazed and easy to clean surface.
- Self-smoothing, high build applications.
- Free of solvent, very low VOC, suitable for work in contained areas.
- Durable and low maintenance product.
- High mechanical strength.

- Easy application with a trowel.
- Excellent resistance against chemicals, detergents, oils and fuels.
- Slightly flexible, tough.
- Available in wide range of colours.
- Provides a dense, impervious seamless floor surface which is easily cleaned.

Instructions for Use:

ARMOFLOOR SLP should be applied by specialist contractors who must follow the Product Method Statement.

Surface Preparation:

All surfaces should be sound, clean, dry, fine grained, load bearing and free from loose material, efflorescence, laitance and substances which impair adhesion such as: curing compounds, dirt, oil, grease, rubber and old paint. Concrete floors should be fully cured. The tensile strength of the floor concrete substrate should be minimum 1.5 N/mm² and compressive strength greater than 25 N/mm². Substrates should be totally dry with moisture content less than 4% throughout and not likely to suffer from rising dampness. If necessary, suitable damp-proof membranes should be installed to prevent such risk.

Proper surface preparation is essential to ensure the substrate is clean, strong, flat and smooth. It is always recommended to prepare the floor utilizing mechanical preparation method: grinding, captive blasting and sand blasting. If the substrate is restricted to access, utilize preparation by handy mechanical tools. Before applying the coating, remove dust from the surface with a vacuum cleaner. Perform repairs to cracks, levelling of floor; fill voids by means of LAVAPOXY - epoxy based repair products. Consult MATEX Technical Department for further advice.

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Apply a rich even coat of primer, ARMOPRIME EP70 or ARMOPRIME EP100 to the substrate prior to application of the product. The primer can be applied in a spread rate of 8 to 10 m²/Lt. depending on substrate porosity. If after drying, the surface appears

patchy due to high absorption, a second coat of the primer may be applied at the same spread rate. Allow the primer to dry 8-12 hours before application of ARMOFLOOR SLP.

Mixing:

Mix the contents of component A (Base) with a low-speed mixer for minutes to homogenize the content of the container. Slowly add the contents of part B (Hardener) to Part A container and mix the material thoroughly with low-speed mixer (200-300 RPM) for an interval of 1 minute. Add the content of part C (Filler) to the mixture slowly ensuring continuous mixing for 3 more minutes confirming a homogenous mixture, color consistent and lump free is reached. Transfer the mix into a clean container and briefly mix again.

Allow the mix to rest for 2-3 minutes prior to application, to allow entrapped air to escape from the mix to prevent pinholes formation at the surface of the finished product. Part mixing of the product components is not acceptable as it will affect both performance and appearance of the finished floor.

Application:

Temperature Requirements:

Substrate Temperature: 15°C to 35°C

Material Temperature: 15°C to 30°C

Preconditioned materials at 20°C to 25°C will reduce possibilities of flash/slow setting and other defects. Substrate temperature must be at least 3°C higher than the dew point temperature.

The applicator should ensure that there are sufficient supplies of labor and materials to make the mixing and subsequent application process a continuous one for any given, independent floor area. The mix should be poured onto the primed substrate as soon as mixing is completed in a controlled quantity according to the thickness of application versus the area of work. Pour the mix evenly to the floor. Allow ARMOFLOOR SLP to level on the floor. Set the

thickness of application to the controlled pin flat aluminum trowel. Double check the exact desired thickness, then spread the materials to the floor evenly using the aluminum adjusted height flat trowel. Allow even spread for the entire work area. Directly apply second batch to the remaining area of the floor in order to prevent fusing marks (control of material quantity and fast preparation of the mix to the requirements of the selected area is a major factor of creating a smooth, leveled fusing free floor). With a spiked roller, go over the surface of the product while wet to allow the ARMOFLOOR SLP to release all air entrapped within. Workers should wear spiked shoes at all times while handling the product.

Standards:

- ASTM C579, C580, D638, D2240
- ASTM D4541, ASTM D4060
- BS 6319-7, BSEN 13892-8

TECHNICAL PROPERTIES		
PARAMETER	ARMOFLOOR SLP 25	ARMOFLOOR SLP 50
Color	Standard Matex Flooring Color Chart	
Density	1.55 ± 0.03 kg/lit	1.70 ± 0.03 kg/lit
Pot-life time at 25°C	30 minutes	
Open to foot Traffic	24 hours @25°C	
Open to Vehicular Traffic	48 hours @25°C	
Complete Hardening	After 7 days	
Application Temperature	+5°C to +40°C	
Pull Off Strength (ASTM D4541)	2 N/mm ² (failure within concrete surface)	
Compressive Strength @7 days (ASTM C579)	57 N/mm ²	62 N/mm ²
Flexural Strength@7 days (ASTM C580)	32 N/mm ²	30 N/mm ²
Tensile Strength (ASTM D412)	>10 N / mm ²	>12 N / mm ²
Breaking Elongation (ASTM D412)	>10%	
Module of Elasticity (ASTM D412)	3000 N/mm ²	
Abrasion Resistance (ASTM D4060)	60 mg/1000 cycles	

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Shore D Hardness (ASTM 2240)	75
Water Absorption	<0.07%
Chemical Resistance	Resistant to most general chemicals/spillages
Volatile Organic Content	< 10 grams/liter

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

CHEMICAL RESISTANCE		
Material	Concentration	Resistance
Lactic Acid	10%	Excellent
Citric Acid	10%	Excellent
Sodium Hydroxide	50%	Excellent
Acetic Acid	10%	Excellent
Butanol	-	Excellent
Crude Oil	-	Excellent
Nitric Acid	10%	Excellent
Mineral Oil	10%	Excellent
Ammonia	-	Excellent
Sea Water/Jet Fuel	-	Excellent

Coverage:

An ARMOFLOOR SLP kit of 15 lit achieves coverage of 7.5 square meters @ 2 mm thickness of application on fair faced primed substrate.

*Coverage rate is an approximate value, and subject to actual site conditions.

Packaging:

ARMOFLOOR SLP is available in 15 liter set of three parts (A+B) metal containers and bag of filler.

Storage:

Store in original packing in dry conditions away from direct sunlight and in temperature-controlled warehouse. Store at +15°C to 25°C

Shelf Life:

ARMOFLOOR SLP can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

Cleaning:

All equipment used should be cleaned before product dries using ARMOSOLVENT. Hardened materials can only be removed mechanically.

Remarks:

- ARMOFLOOR SLP should not be applied onto surfaces likely to suffer from rising dampness or moisture content.
- ARMOFLOOR SLP should not be applied at ambient temperatures less than 5°C.
- ARMOFLOOR SLP should not be applied to asphalt, weak or friable concrete, PVC tiles or asphalt sheet substrates.
- ARMOFLOOR SLP should not be applied if the surface relative humidity is more than 75%.
- All existing expansion or movement joints should be followed through the new floor surface.
- ARMOFLOOR SLP may change color or fade if exposed to sunlight but this has no effect on its performance characteristics.
- Pay attention to aggressive cleaning cycles and temperatures of both chemicals and cleaning regimes.
- Prior to application, ARMOFLOOR SLP kits should be stored under cover in air conditioning and protected from extremes of temperature which may cause inconsistent workability, finish and cure times of the mixed material.

Health and Safety:

Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapour or spray mist.

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FIRST AID:

- Eyes: In the event of accidental splashes, flush with warm water and seek medical advice.
- Skin: Wash skin thoroughly with soap and water
- Inhalation: Remove to fresh air, keep patient rested
- Ingestion: Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to ARMOFLOOR SLP Material Safety Data Sheet.

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