

ARMOFLOOR SLE

High Performance Self-leveling Epoxy Topping

Description:

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

Dependent on the required thickness, the product is produced in two versions: ARMOFLOOR SLE 25 is for thicknesses from 1- 2.5 mm and ARMOFLOOR SLE 50 for thicknesses from 2.0 mm– 4.0 mm

Uses:

ARMOFLOOR SLE is designed for use in a wide range of industrial facilities, where a lasting solution to floor maintenance problems is required. It provides a dense, impervious, colored, abrasion and chemical resistant floor surface which is hygienic and easy to clean. Typical applications include:

- Hygienic facilities; laboratories and hospitals.
- Food processing and medicine production plants.
- Aircraft hangers.
- Heavy duty storage areas and hangers.
- Production faculties and industrial flooring.
- 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, excellent abrasion resistance.
- Excellent adhesion to substrate.
- Easy application with a trowel.
- Excellent resistance against chemicals, detergents, oils and fuels.
- Nontoxic, very limited odor.
- Available in wide range of colours.
- Hygienic. Provides a dense, impervious seamless floor surface which is easily cleaned.

Instructions for Use:

ARMOFLOOR SLE should be applied by specialist contractors who must follow the Product Method Statement. Consult with MATEX Technical Department for a list of approved applicators.

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, rubber, old paint and grease. 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, utilise 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.

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Consults MATEX Technical Department for further advice.

Apply a rich even coat of ARMOPRIME EP70 or EP100—epoxy based primers 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 SLE.

Mixing:

Mix the contents of component A (Base) with a low speed mixer for two minutes to homogenize the content of the container. Slowly add the contents of part B (Hardener) to Part A container. Mix the material thoroughly with low-speed mixer (200-300 RPM) for an interval of 2 minutes preventing air entrapment, add the contents of part C (Filler) to the mixture slowly ensuring continuous mixing for 2-3 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 and 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 Requirement:

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 SLE to flow to 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 SLE to release all air entrapped within. Workers should wear spiked shoes at all times while handling the product.

Standards:

- ASTM D4541, ASTM D4060, ASTM D638, ASTM D2240
- BS 6319, Part 7, BS EN 13892-8

TECHNICAL PROPERTIES		
PARAMETER	ARMOFLOOR SLE 25	ARMOFLOOR SLE 50
Color	Standard Matex Flooring Color Chart	
Density	1.65 ± 0.03 kg/lit	1.92 ± 0.03 kg/lit
Pot-life time at 25°C	60 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 @ 7 days cure the concrete substrate.	
Compressive Strength (ASTM D579)	55 N/mm ²	65 N/mm ²
Flexural Strength (ASTM D580)	30 N/mm ²	24 N/mm ²

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Tensile Strength (ASTM D412)	18N/mm ²
Abrasion Resistance (ASTM 4060)	70 mg/1000 cycles
Shore D Hardness (ASTM 2240)	75-80
Chemical Resistance	Resistant to most general chemicals and spillages
Water Absorption	<0.1%

*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
Hydrochloric Acid	10%	Excellent
Sodium Hydroxide	50%	Excellent
Acetic Acid	10%	Excellent
Butanol	-	Excellent
Crude Oil	-	Excellent
Nitric Acid	10%	Excellent
Sulphuric Acid	10%	Excellent
Mineral Oil	10%	Excellent
Ammonia	-	Excellent
Sea Water/Jet Fuel	-	Excellent

Coverage:

An ARMOFLOOR SLE 25 kit of 15 liter achieves approx. coverage of 7.5 square meters @ 2.0 mm thickness on fair faced primed substrate.

An ARMOFLOOR SLE 50 kit of 15 liters achieves coverage of 3.75 square meter @ 4.0 mm thickness on fair faced primed substrate.

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

Packaging:

ARMOFLOOR SLE is available in 15 Ltr. set of three parts (A+B) metal containers and (C) 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 30°C

Shelf Life:

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

Cleaning:

Clean used tools with ARMOSOLVENT before product dries. Hardened material can only be removed mechanically.

Remarks:

- ARMOFLOOR SLE should not be applied onto surfaces likely to suffer from rising dampness or moisture content.
- ARMOFLOOR SLE Should not be applied at ambient temperatures less than 5°C.
- ARMOFLOOR SLE should not be applied to asphalt, weak or friable concrete, PVC tiles or asphalt sheet substrates.
- ARMOFLOOR SLE 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 SLE 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 SLE 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.

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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.

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 SLE Material Safety Data Sheet.

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