

# ARMOFLOOR SLE

## High Performance Self-leveling Epoxy Topping

### Description:

ARMOFLOOR SLE is a solvent free, high performance, epoxy-based self-leveling topping that provides a floor with seamless, water-tight, hygienic, highly chemical and abrasion resistant and with attractive monolithic finish. It 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 thicknesses from 1- 2.5 mm presented in dual pack kit.

ARMOFLOOR SLE 50 for thicknesses from 2.5 mm – 5.0 mm presented in three component kit.

### Applications:

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.
- 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 and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. Concrete floors should be fully cured. Substrates should be totally dry 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 maximum bond strength between the substrate and the flooring system is achieved. 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. Perform repairs to cracks, levelling of floor, fill voids by means of LAVAPOXY Epoxy based repair products. Consults MATEX Technical Department for further advice.

Apply a rich coat of ARMOPRIME EP70 or EP100 to the substrate prior to application of the product. The primer can be applied in a spread rate of 4 to 6 m<sup>2</sup>/Lt. depending on substrate porosity.

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## 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 thoroughly the material with low speed mixer (200-300 RPM) for an interval of 2 minutes. In case of ARMOFLOOR SLE 50 add the contents 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.

Allow the mix to relax 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:

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 verses 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:

ARMOFLOOR SLE conforms to:

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

TECHNICAL PROPERTIES		
PARAMETER	ARMOFLOOR SLE 25	ARMOFLOOR SLE 50
Color	Light grey, grey , green , red, blue (further colors are available on request)	
Tensile Strength	53 N / mm <sup>2</sup>	64 N / mm <sup>2</sup>
Compressive Strength @ 3 mm thickness		
Flexural Strength @ 3 mm thickness	40 N/mm <sup>2</sup>	34 N / mm <sup>2</sup>
Volatile Organic Content	< 20 grams / liter	
Water Absorption	<0.1% (ASTM D570)	
Density	1.55 Kg/ m <sup>3</sup>	1.70 Kg/ m <sup>3</sup>
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	
Tensile strength @7 days (ASTM D638)	18N/mm <sup>2</sup>	
Pull off strength (BS 1881, Pt. 207)	2 N/mm <sup>2</sup> (Failure within @ 7 days cure the concrete substrate.	

CHEMICAL RESISTANCE		
Material	Concentration	Resistance
Lactic Acid	10%	Excellent
Citric Acid	10%	Excellent
Hydrochloric Acid	18%	Excellent
Sodium Hydroxide	50%	Excellent
Acetic Acid	10%	Excellent
Butanol	-	Excellent
Crude Oil	-	Excellent
Nitric Acid	20%	Excellent
Sulphuric Acid	50%	Excellent
Mineral Oil	10%	Excellent
Ammonia	-	Excellent
Sea Water/Jet Fuel	-	Excellent

# ARMOFLOOR SLE

## Packaging:

ARMOFLOOR SLE 25 is available in 30 Kg set of two parts (A+B) metallic container.

ARMOFLOOR SLE 50 is available in 30 Kg set of three parts (A+B) metallic containers and bag of filler.

## Storage:

Store in original packing in dry conditions away from direct sunlight and in temperature controlled warehouse.

## Coverage:

ARMOFLOOR SLE 25 achieves coverage of 9.0 square meters per set @ 2.0 mm thickness.

ARMOFLOOR SLE 50 achieves coverage of 4.25 square meters per set @ 4.0 mm thickness.

## Shelf Life:

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

## Cleaning:

Clean used tools with SOLVENT before product dries.

## 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 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.
- It is strongly recommended to apply ARMOFLOOR SLE by specialist contractor or experienced applicator who must follow the procedures laid down in the product Method Application.

## Health and Safety:

- Use goggles and gloves during application. Do not breathe vapor of products. Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- Avoid direct contact with flames and fire.

MATEX Rev.01-1015

This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

