

ARMOFLOOR S1000

Heavy Duty Multi-layer Epoxy Flooring System

Description:

ARMOFLOOR S1000 a multi-layer Heavy Duty epoxy floor system designed to provide high mechanical, and chemical resistance for concrete flooring, supported with UV Protection top coat. According to the aggregate applied within the system, anti-skid properties can be controlled.

ARMOFLOOR S1000 is recommended for indoor applications and outdoor, providing a practical and cost effective system for floor protective.

Applications:

ARMOFLOOR S1000 is generally used for car parks and industrial flooring characterized with high mechanical and chemical resistance. Wider range of applications include:

- Car parks for Multi store buildings.
- Heavy duty industrial faculties.
- Stores and warehouses flooring and loading bays.
- Mechanical and chemical workshops
- Hangers and heavy equipment stores.
- Army vehicles hangers.
- Chemical and oil plants.
- General repairs for floors subject to heavy traffic.

Advantages:

- High impact resistant, with excellent abrasion resistance.
- Excellent mechanical resistance with high compressive, flexure strength.
- Durable with long life span and low maintenance cost.
- Excellent resistance to a wide range of chemicals.
- UV Resistant System
- Excellent adhesion to substrate. Bonding strength with substrate is greater than concrete cohesive strength.
- Anti-slip characteristics

Chemical Resistance:

ARMOFLOOR S1000 system is resistant to wide range of chemicals:

CHEMICAL RESISTANCE		
Material	Concentration	Resistance
Citric Acid	10%	Excellent
Hydrochloric Acid	20%	Excellent
Sodium Hydroxide	50%	Excellent
Acetic Acid	10%	Excellent
Butanol	–	Excellent
Nitric acid	20%	Excellent
Sulphur Acid	20%	Excellent
Mineral Oil	10%	Excellent
Ammonia	10%	Excellent
Sea Water		Excellent
Jet Fuel		Excellent

ARMOFLOOR S1000 SYSTEM:

ARMOPRIME EP100	Two component solvent based, low viscosity epoxy primer.
ARMOFLOOR EP500	Epoxy floor coating based on solvent free technology in colored dual pack system.
*ARMOFLOOR UVR	Two parts solvent aliphatic based pigmented top coat
QUARTZ	Dry, graded silica sand to create anti-slip characteristics.
ARMOFLOOR LM	Line marking coating

**For outdoor application*

Colors:

ARMOFLOOR S1000 system is available in various colors including: Light grey, grey, dark grey, green blue, brick red, beige and light green, refer to MATEX Flooring Colour Chart.

ARMOFLOOR S1000

Instructions for Use:

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.

The right surface preparation will ensure proper bonding between the screed and the substrate. It is always recommended to prepare the floor utilizing mechanical preparation method: Grinding, captive blasting, sand blasting. If the substrate is restricted to access, utilise preparation by handy mechanical tools. Perform repairs to cracks, levelling of floor; voids filling by means of LAVAPOXY Epoxy based repair products.

Mixing:

ARMOFLOOR S1000 products are mixed mechanically with low speed drill mixer fitted with suitable paddle. To prepare the mix, add the contents of Part B (hardener) to Part A (base) container, and mix for minimum of 3 minutes till obtaining a homogeneous mix. Do not mix partially the base and the hardener. Mix the complete kit at a time.

Application:

Priming:

Apply a rich coat of ARMOPRIME EP100 to the substrate prior to application of subsequent layers; the prime can be applied in a spread rate of 5.5-6.5 m²/Ltr. depending on substrate porosity.

Epoxy layer:

Within 6-24 hours from application of primer, apply a layer of ARMOFLOOR EP500 with a nominal thickness of 250 microns, while the coat is still tacky, broadcast the QUARTZ or QUARTZ 3 at a rate of 1-2 Kg per square meter to achieve anti-slip properties.

After 24 hours, swipe the excess aggregates and clean the surface properly, Apply second coat of epoxy ARMOFLOOR 500 at a rate of 250 microns per sqm. If the requirements to apply a protective coat against sun light, apply protective coat of ARMOFLOOR UVR in a thickness of 100 microns per coat. Interior applications does not require application of ARMOFLOOR UVR.

In RAMP areas: apply a second broadcast of QUARTZ while second coat of epoxy is tacky, then wait for 24 hours, sweep the ramp clean from the excess aggregates then a third coat of ARMOFLOOR EP500 to

applied to the ramps with Final Top Coat ARMOFLOOR UVR.

Allow the system to cure for a least 3 days then apply line marking to the drawings utilizing ARMOFLOOR LM.

Application Thickness:

ARMOFLOOR S1000 can be applied in the following thickness to achieve desired results:

PRIMER	ARMOPRIME EP100	100 micron
Epoxy Layer	ARMOFLOOR EP500	250 micron
Aggregate	QUARTZ	1-2 Kg/m ²
2 nd Epoxy Layer	ARMOFLOOR EP500	250 micron
UV Protection*	ARMOFLOOR UVR	100-150 micron
Line Marking	ARMOFLOOR LM	As per drawing

**For outdoor application*

Average thickness of the above system will vary between 700-1200 micron, dependant on aggregate application.

Technical Properties

ARMOPRIME EP100

PROPERTIES	RESULTS
Appearance	Fluid Liquid
Color	Transparent
Density	1.05±5 Kg./Lt.
Pot-life time at 25°C	60 minutes
Hardening at 25°C recoat interval	6-24 hours
Bond Strength	>cohesive strength of concrete

ARMOFLOOR EP500

PROPERTIES	RESULTS
Color	Standard Matex Flooring Color Chart
Solid Content	100%
Tensile strength	22 N / mm ²
Compressive strength	80 N / mm ²
Flexural strength	42 N / mm ²
Bond strength	greater than cohesive strength of concrete
Density	1.55 Kg. / Lt.
Viscosity at 25°C	1200 Mpa.S
Pot-life time at 25°C	60 minutes

ARMOFLOOR S1000

ARMOFLOOR UVR

PROPERTIES	RESULTS
Color	Standard Matex Color Chart (further colors are available on request)
Density	1.165 ± 0.05 Kg/Ltr.
Pot-life time at 25°C	60 minutes
Drying time @23°C	Recoating 12-24 hours Light traffic 24-48 hours Vehicle traffic 7 days
Abrasion Resistance	90 mg/1000 cycles
Tensile Strength	5 N / mm ²
Adhesion to Concrete	Concrete fails before loss of bond
Dry Coat Thickness	100 µ depending on substrate conditions
Application Temperature	+5°C to +40°C

Packaging:

ARMOFLOOR S1000 System is available as:

ARMOPRIME EP100	15 Liter Kit
ARMOFLOOR EP500	15 Liter Kit
ARMOFLOOR UVR	15 Liter Kit
QUARTZ	25 Kg Bag
ARMOFLOOR LM	20 Kg Metallic can

Storage:

Store in original packing in dry conditions away from direct sunlight.

Shelf life:

If stored as recommended, products in the system will remain stable for 12 months from the manufacturing date.

Cleaning:

Tools used to mix and apply ARMOFLOOR S1000 can be cleaned with ARMOSOLVENT.

Remarks:

ARMOFLOOR S1000 should not be applied in the following situations:

- Onto surfaces likely to suffer from rising dampness or moisture content.
- When surface relative humidity level exceeds 80%.
- When temperature is below 5°C or above 40°C.
- On asphalt, weak or friable concrete, PVC tiles or sheet flooring.

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.

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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.

