

ARMOFLOOR S3200

Polyurethane Flexible Waterproof Traffic Deck System

Description:

ARMOFLOOR S3200 is a multi-layer Heavy duty polyurethane waterproofing traffic deck system designed to provide elasticity, high mechanical and chemical resistance for concrete flooring.

The system is developed based on high quality durable polyurethane resins, manufactured to deliver elasticity and high mechanical strength with various finishes for anti-skid purposes according to the aggregate selection within the system if required.

ARMOFLOOR S3200 is a system based on high quality Polyurethane resins recommended for indoor applications.

Applications:

ARMOFLOOR S3200 is generally used for car parks and industrial flooring characterized with high mechanical and chemical resistance requiring elasticity and waterproofing features, Wider range of applications include:

- Car parks for Multi store buildings
- Industrial facilities.
- Food and vegetable stores
- Poultry facilities
- Stores and warehouses flooring
- Laboratories and medical facilities
- Shopping malls and pedestrian areas

Advantages:

- High impact resistant, with excellent abrasion resistance.
- Flexible and accommodates substrate movement
- Durable with long life span and low maintenance cost.
- Excellent resistance to a wide range of chemicals

- Excellent adhesion with substrate, with bonding strength greater than concrete cohesive strength.
- Anti-slip characteristics when integrated with QUARTZ aggregates.

Chemical Resistance:

ARMOFLOOR S3200 system is resistant to wide range of chemicals.

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

ARMOFLOOR S3200 SYSTEM:

ARMOPRIME EP100	Two component solvent free low viscosity epoxy primer.
ARMOFLOOR MB2	High build elastomeric two component liquid applied waterproofing membrane.
ARMOFLOOR PU400	High build flexible polyurethane floor coating.
ARMOFLOOR UVR	Two parts solvent based UV pigmented top coat
QUARTZ	Dry, graded silica sand
ARMOFLOOR LM	Line marking coating

Colors:

ARMOFLOOR S3200 system is available in various colorus including: Light grey, grey, dark grey, green blue, brick red, beige and light green, refer to MATEX Flooring Colour Chart.

ARMOFLOOR S3200

Application Thickness:

ARMOFLOOR S3200 with ARMOFLOOR UVR Topcoat can be applied in the following thickness to achieve desired results:

PRIMER	ARMOPRIME EP100	100-150 micron
Base Coat	ARMOFLOOR MB2	1.0 Kg/m ²
Aggregate	QUARTZ	1-2 Kg/m ²
Intermediate Second Layer	ARMOFLOOR PU400	250 micron
UV Protection	ARMOFLOOR UVR	100-150 micron
Line Marking	ARMOFLOOR LM	As per drawing

Average thickness of the above system will vary between 1000-1500 micron, depending of aggregate application.

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 S3200 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 7-9 m²/Ltr. depending on substrate porosity.

Base Coat:

Within 6-24 hours from application of primer, apply a layer of ARMOFLOOR MB2 with a nominal thickness of 700 microns (1.0 Kg/m²), while the coat is still tacky, broadcast the QUARTZ at rate of 1-2 Kg per square meter to achieve anti-slip properties.

Intermediate Layer:

After 24 hours, swipe the excess aggregates and clean the surface properly, apply a coat of ARMOFLOOR PU400 at a rate of 250 microns per sqm.

Top Coat:

For flooring areas having direct exposure to sun light apply protective coat of ARMOFLOOR UVR at a thickness of 100 micron. Interior areas do not require application of ARMOFLOOR UVR.

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

Packaging:

ARMOFLOOR S3200 System is available as:

ARMOPRIME EP100	15 Liter Kit
ARMOFLOOR MB2	15 Liter Kit
ARMOFLOOR PU400	15 Liter Kit
ARMOFLOOR UVR	15 Liter Kit
QUARTZ	25 Kg Bag
ARMOFLOOR LM	20 Kg Metal pail

Technical Properties

ARMOPRIME EP100

PROPERTIES	RESULTS
Appearance	Fluid Liquid
Density	1.05 ± 5% Kg./Lt.

ARMOFLOOR S3200

ARMOPRIME EP100

Compressive Strength	70 N / mm ²
Bonding strength	Greater than cohesive strength of concrete substrate
Dry Residual	100%

ARMOFLOOR MB2

PROPERTIES	RESULTS
Color	Grey
Density	1.50 Kg/m ³
Pot life	30 minutes @ 25°C
Solid Contents	100%
Touch Dry	6 hours
Full Dry	7 days
Water vapor transmission	0.3 g/h/m ²
Adhesion to concrete	2.0 N/mm ²
Crack bridging	Up to 1/2 inch ,no effect
Tensile strength	6.0 N / mm ²
Elongation at Break	100%
Water penetration	NIL
Complete Curing	7 days
Application Temp.	+5°C to +40°C
Service Resistance	-5°C to +80°C

ARMOFLOOR PU400

PROPERTIES	RESULTS
Appearance	Liquid coating
Color	Matex Flooring Color Chart
Density	1.54 Kg/Ltr.
VOC	< 10 g/Ltr.
Pot-life time at 25°C	30 minutes
Bond Strength	2.2 N/mm ² (Cohesive failure of concrete)
Elongation (ASTM D 412)	100%
Tensile Strength (ASTM D 412)	11.0 N/mm ²
Flexural Strength	22 N/mm ²
Abrasion Resistance (ASTM D 4060)	<40 mg/ 1000 cycles
Full Traffic Use at 25°C	7 days
Application Temperature	+5°C to +40°C
Elongation	100%
Elastic Modulus (Kpa)	590
Shore hardness D	65
Crack Bridging	2mm
Compressive Strength	62 N/mm ²

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

System Thickness:

800-1000 microns

Cleaning:

Tools used to mix and apply ARMOFLOOR S3200 can be cleaned with ARMOSOLVENT.

Remarks:

ARMOFLOOR S3200 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.

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.

