

## Technical Data Sheet

# ARMOFLOOR S3240

## Polyurethane Flexible Protective Waterproof Traffic Deck System

### Description:

ARMOFLOOR S3240 a UV stable multi-layer Heavy duty polyurethane 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 S3240 is a system based on high quality Polyurethane resins recommended for indoor and outdoor applications with high stability against UV rays and direct sun light exposure.

### Applications:

ARMOFLOOR S3240 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 faculties.
- 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.
- Waterproof with crack bridging ability.
- Flexible and accommodates substrate movement
- Excellent resistance to a wide range of chemicals

- Durable with long life span and low maintenance
- 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.
- UV resistant, applied both for interior and exterior applications.

### Chemical Resistance:

ARMOFLOOR S3240 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 S3240 SYSTEM:

ARMOPRIME EP100	Two component solvent free low viscosity epoxy primer.
ARMOFLOOR MB4	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

# ARMOFLOOR S3240

## Colors:

ARMOFLOOR S3240 system with ARMOFLOOR UVR top coat is available in various colours including: Light grey, grey, dark grey, green blue, brick red, beige and light green, refer to MATEX Flooring Colour Chart.

## Application Thickness:

**ARMOFLOOR S3240 can be applied in the following thickness to achieve desired results:**

PRIMER	ARMOPRIME E100	100-150 micron
Intermediate Layer	ARMOFLOOR MB4	2 Kg/m <sup>2</sup>
Aggregate	QUARTZ	1-2 Kg/m <sup>2</sup>
2 <sup>nd</sup> PU Layer	ARMOFLOOR PU400	250 micron
UV Protection	ARMOFLOOR UVR	100 micron
Line Marking	ARMOFLOOR LM	As per drawing

Average thickness of the above system will vary between 1500-2500 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.

Remove all damaged concrete and ensure sound concrete reached, then perform repairs to cracks, levelling of floor; voids filling by means of LAVAPOXY range Epoxy based repair products, for smoothening and minor repair, apply LAVAPOXY FINISH, for more coarse repair apply the LAVAPOXY range.

### Mixing:

ARMOFLOOR S3240 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 8-9 m<sup>2</sup>/Ltr. depending on substrate porosity.

#### Polyurethane MEMBRANE:

Within 4-24 hours from application of primer, apply a layer of ARMOFLOOR MB4 with a nominal thickness of 1400 microns (2 Kg/m<sup>2</sup>). The mixed material is poured onto the primed surface and spread evenly with a notched trowel. Continuous spiking with a spiked roller is to be done to remove all entrapped air. For anti-slip features, while the coat is till tacky, broadcast the QUARTZ at rate of 1-2 Kg per square meter to achieve anti-slip properties.

#### PU Coat:

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

#### Top Coat:

Apply ARMOFLOOR UVR protective UV resistant abrasion resistant coat shall be applied in two protective coats with thickness of 100 microns each coat.

Allow the system to cure for at least 7 days then apply line marking to the drawings utilizing ARMOFLOOR LM.

### Packaging:

ARMOFLOOR S3240 System is available as:

ARMOPRIME EP100	15 Liter Kit
ARMOFLOOR MB4	15 Liter Kit
ARMOFLOOR PU400	15 Liter Kit
ARMOFLOOR UVR	15 Liter Kit
QUARTZ	25 Kg Bag
ARMOFLOOR LM	20 Kg. metal pail

# ARMOFLOOR S3240

## 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
Compressive Strength	70 N / mm <sup>2</sup>
Flexural strength	15 N / mm <sup>2</sup>
Bonding strength	Greater than cohesive strength of concrete substrate
Dry Residual	100%
Hardening at 25°C recoat interval	12 hours
Completely Hardened	7 days
Viscosity at 25°C	1500 – 2000 Mpa.S

### ARMOFLOOR MB4

PROPERTIES	RESULTS
Color	Grey
Density	1.45 Kg/m <sup>3</sup>
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 <sup>2</sup>
Adhesion to concrete	2.0 N/mm <sup>2</sup>
Shore A hardness	50
Crack bridging	Up to 2.0 mm ,no effect
Tensile strength	5.0 N / mm <sup>2</sup>
Elongation at Break	300%
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
Color	See colour chart
Density	1.4 ± 0.05 g/cm <sup>3</sup>
Viscosity at 25°C	900 MPa.S
Pot-life time at 25°C	30 minutes
Solid Contents	100%
Pull off strength (ASTM D4541)	>2 N / mm <sup>2</sup>
Tensile Strength (ASTM D412)	6 N / mm <sup>2</sup>
Tear Resistance	27 N / mm

### ARMOFLOOR PU400

Abrasion Resistance (ASTM D4060)	60 Mg/1000 cycles
Heat Resistance	-5°C to +80°C
Volatile Organic content VOC	<10 gr./Lt.

### ARMOFLOOR UVR

PROPERTIES	RESULTS
Color	Standard Color Chart (further colors are available on request)
Tensile Strength	5 N / mm <sup>2</sup>
Density	1.17 g/cm <sup>3</sup>
Abrasion Resistance (ASTM D 4060)	90 mg/ 1000 cycle
Pot-life time at 25°C	60 minutes
Drying time @23°C Recoating Light Traffic Vehicle	12-24 minutes 24-48 hours
Dry Coat Thickness	100 μ depending on substrate conditions
Adhesion to Concrete	Concrete fails before loss of bond
System Thickness	1.0 – 1.5mm

### Cleaning:

Tools used to mix and apply ARMOFLOOR S3240 can be cleaned with ARMOSOLVENT.

### Remarks:

ARMOFLOOR S3240 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.

MATEX Rev.05-0220

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.

