Technical Data Sheet

ARMOFLOOR S2200

Seamless, Self-Smoothing Flexible Polyurethane Flooring System

Description:

ARMOFLOOR S2200 is a heavy duty multilayer polyurethane flooring system, for the protection of concrete floors subject to high levels of traffic, impact and abrasion. Once the products are applied it forms a tough, flexible flooring system.

ARMOFLOOR S2200 is designed for commercial, industrial and traffic deck system application. It imparts good mechanical strength with excellent impact and abrasion resistance.

Uses:

ARMOFLOOR S2200 is suitable for application such as car park decks and ramps and in areas with heavy pedestrian traffic such as supermarkets, schools, hospitals, corridors, cafeterias, hotels, shops, multipurpose halls, cold stores.

Advantages:

- Very good mechanical strength, abrasion resistance and chemical resistance.
- Very good impact strength.
- Seamless and water tight.
- Reduces noise, stops tire squeal.
- Semi-flexible.
- UV Resistant
- Resistant to a range of chemicals such as petrol, diesel, detergents.

ARMOFLOOR S2200 SYSTEM:

ARMOPRIME EP100	Two component epoxy primer
QUARTZ	Dry, graded silica sand
ARMOFLOOR PU400	High build flexible polyurethane floor coating
ARMOFLOOR UVR	Two parts solvented UV pigmented top coat
ARMOFLOOR LM	Line marking coating

Instructions for Use:

ARMOFLOOR S2200 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. Ensure that concrete floors are fully cured, and have moisture content less than 5%. Prepare surface utilizing mechanical preparation method: grinding, captive blasting, sand blasting in order to provide suitable profiled open texture surface. If the substrate is restricted to access, utilise preparation by handy mechanical tools.

All repairs to cracks, levelling of floor, voids filling should be completed by LAVAPOXY and LAVAPOXY FINISH-epoxy based repair products. Once the repair is completed, allow the product to cure then remove the dust from the surface using industrial vacuum.

Priming:
All substrates where necessary must be primed with ARMOPRIME EP100. Mix the hardener component B of ARMOPRIME EP100 into the base component A thoroughly using a low-speed drill. Apply a rich coat of primer to the prepared surface at the rate of 8 to 10 m^2/Lt depending on substrate porosity. Broadcast a layer of QUARTZ at a rate of 1.5 to 2.5 kg/m^2 while the primer is still tacky.

Intermediate Coat:
ARMOFLOOR PU400 is supplied in 2 pre-weighed packs ready to use in exact ratio. The contents of container A (Base) should be mixed for 1-2 minutes with a slow speed drill (400rpm). Then transfer the entire contents of container B (Hardener) into the container A and mix for 3 to 4 minutes without causing air bubbles. Scrape the side and bottoms of the container well to ensure thorough mixing.

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Pour the mixed material onto the primed surface in pools or as large strips. Spread it evenly to the desired thickness using V notch trowel. Continuous spiking with a spiked roller is to be done. Allow to cure overnight.

Top coat:

ARMOFLOOR UVR is composed of two components that must be mixed at the time of use. Mix the contents of component A (Base) with a low speed mixer for one minute to homogenize the content of the container. Slowly add the entire contents of part B (Hardener) to Part A container and mix the material thoroughly with low-speed mixer (200-300 rpm) fitted with suitable paddle, for an interval of 3-4 minutes confirming a homogenous, color consistent mixture is reached.

To provide UV resistance to the system and to enhance outdoor durability, apply ARMOFLOOR UVR using a brush, roller or airless spray at the rate approximate 6 m^2/ liter at 100 micron dft over the clean dust free surface.

Technical Properties:

ARMOPRIME EP100

ROPERTIES	RESULTS
Appearance	Liquid
Color	Transparent, pale
Density	1.05± 0.03 kg/lit
Viscosity	300-700 Mpa.S
Pot life time at 25°C	60 minutes
Hardening at 25°C recoat interval	12 - 16 hours
Completely Hardened	7 days
Bonding strength (ASTM D4541)	>2.0 N/mm^2 (greater than cohesive strength of concrete substrate)
Compressive Strength (ASTM C579)	70 N/mm^2
Flexural strength (ASTM C580)	15 N/mm^2

ARMOFLOOR PU400

PROPERTIES	RESULTS
Appearance	Liquid Coating
Color	MATEX Flooring color chart
Density	1.40 ± 0.03 kg/lit
Pot-life time at 25°C	30 minutes
Application Temperature	+5°C to +40°C
Bond Strength (ASTM D4541)	2.2 N/mm^2 (Cohesive failure of concrete)
Elongation (ASTM D 412)	100%
Tensile Strength (ASTM D412)	6.0 N/mm^2
Crack Bridging (ASTM D4060)	>2 mm
Shore D Hardness (ASTM D2240)	>65
Abrasion Resistance (ASTM D4060)	<40 mg/ 1000 cycles

ARMOFLOOR UVR

PROPERTIES	RESULTS
Color	Standard MATEX Color Chart (further colors are available on request)
Density	1.30 ± 0.03 kg/lit
Pot-life time at 25°C	60 minutes
Drying Time @23°C Recoating Light Traffic Vehicle Traffic	 12 – 24 hours 24 – 48 hours 7 days
Dry Coat Thickness	75-100 µ
Adhesion to Concrete (ASTM D4541)	>2 N/mm^2 (Cohesive failure within concrete)
Tensile Strength (ASTM D412)	>5 N/mm^2
Abrasion Resistance (ASTM D4060)	90 Mg/1000 cycle

System Thickness:

ARMOPRIME EP100	100 - 125 micron
ARMOFLOOR PU400 (with QUARTZ)	>approx. 1 mm
ARMOFLOOR UVR	75 – 100 micron
Average thickness : 1.0-1.5 mm	

*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

Packaging:

ARMOFLOOR S2200 System is available as:

ARMOPRIME EP100	15 Liter Kit
ARMOFLOOR PU400	15 Liter Kit
ARMOFLOOR UVR	15 Liter Kit
QUARTZ 1	25 Kg Bag
ARMOSOLVENT	20 Liter pail

Storage:

Store in original packing in dry conditions away from direct sunlight with temperature between 5-35°C

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Shelf life:

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

Cleaning:

All tools must be cleaned with ARMOSOLVENT before hardening. Hardened materials can only be removed mechanically.

Remarks:

- ARMOFLOOR S2200 should not be applied onto surfaces likely to suffer from rising dampness or moisture content.
- ARMOFLOOR S2200 Should not be applied at ambient temperatures less than 5°C.
- ARMOFLOOR S2200 should not be applied to asphalt, weak or friable concrete, PVC tiles or asphalt sheet substrates.
- ARMOFLOOR S2200 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.
- Pay attention to aggressive cleaning cycles and temperatures of both chemicals and cleaning regimes.
- Prior to application, ARMOFLOOR S2200 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.

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. The product is flammable, keep away from sources of ignition. DO NOT SMOKE. Take precautionary measures against static discharge.

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 individual Material Safety Data Sheet of each product in the system.

P.O. BOX: 29585, Dubai, UAE, Tel: +971 4 333 4140, Fax: +971 4 333 4115
Email: info@matex.ae, www.matex-global.com