

ARMOFLOOR PC5000

High Performance Heavy Duty Polyurethane Floor Screed

Description:

ARMOFLOOR PC5000 is a three-component, heavy duty polyurethane floor screed system designed to provide high mechanical, and chemical industrial flooring. It is composed of polyurethane base, hardener in addition to specially selected filler. Once mixed, it produces highly durable impact resistant, abrasion resistant and chemical withstanding floor screed that removes irregularities giving a uniform surface and accepts further finishes as part of a multilayer system. It is normally applied for a thickness of 5-12 mm. ARMOFLOOR PC5000 can also be used as a repair polyurethane mortar where high compressive strength is required.

Uses:

ARMOFLOOR PC5000 is generally used for industrial flooring characterized with high mechanical and chemical resistance. Wider range of applications include:

- Hygiene, maintenance free flooring such as food processing, dairies, etc.
- 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.
- Coving filling in manholes and sewage works.

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.
- Acting as waterproof layer.

- Excellent resistance to a wide range of chemicals.
- Excellent adhesion with substrate. Bonding strength with substrate is greater than concrete cohesive strength.

Instructions for Use:

ARMOFLOOR PC5000 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.

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. Remove dust thoroughly from surface, preferably using vacuum.

Apply a rich coat of ARMOPRIME EP100 – epoxy based primer to the substrate prior to application of the screed; the primer can be applied in a spread rate of 8 to 10 m²/Lt depending on substrate porosity. Broadcast QUARTZ no. 1 lightly at the rate 0.5-1.5 Kg/m² when the primer is still wet.

Mixing:

The system is supplied as a three parts kit. 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 contents of part B (Hardener) to Part A container and mix thoroughly for 2 minutes.

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Then slowly add the contents of Part C (Filler) while ensuring continuous mixing for an interval of 3-4 minutes confirming a homogenous color consistent, lump free, mixture is reached.

It is strongly recommended to mix the content of the kit at once and not to do partial mixing. Use a heavy duty low speed drill fitted with a suitable paddle for mixing.

Application:

All necessary preparation should be done before start mixing the content of the kit. The work area should be divided into bays and governed by guides (metallic or wooden) to the desired thickness of the screed. The level required should be measured by the upper top of the guides to level the floor evenly. Once mixed, the material must be used within its pot life. Pour the mixed mortar on the floor when the primer is still in a tacky condition.

Introduce the ARMOFLOOR PC5000 mixture to the floor within the work area, spread the materials by trowel, after pouring the proper quantity to the governed area. Level the screed to the top level of the guides using a clean smooth metallic trowel. Apply pressure to compact the polyurethane screed while leveling to avoid gaps or air pockets in the screed floor.

Smoothing the surface of the screed with a smooth trowel is essential to produce a smooth polyurethane surface that can directly go into service after curing. Allow 1 day for pedestrian traffic and 3 days for heavy traffic. For decorative or marking reasons, a coat of ARMOFLOOR EP500-epoxy floor coating can be applied to color the ARMOFLOOR PC5000 screed.

Standards:

- EN 13813 (SR)
- ASTM C579, C580, C307, D4541, D4060

TECHNICAL PROPERTIES	
Color	Pale
Density (Mixed)	2.0 ± 0.03 kg/lit
Pot-life time at 25°C	>25 minutes
Application Temperature	+5°C to +40°C

Foot Traffic	After min. 24 hours
Vehicular Traffic	After min. 48 hours
Completely Hardened	7 days
Adhesion Strength (ASTM D4541)	2.5 N / mm ²
Compressive Strength (ASTM C579)	>80 N / mm ²
Flexural strength (ASTM C580)	>40 N / mm ²
Tensile Strength (ASTM C307)	>10 N / mm ²

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

Coverage:

An ARMOFLOOR PC5000 kit achieves coverage of 1.5 square meters per set @ 10 mm thickness.

*Coverage rate is an approximate value, and subject to actual site conditions.

Packaging:

ARMOFLOOR PC5000 kit is available in 30 kg set of 3 parts (two parts metal containers and a bag of filler).

Storage:

Store in original packing in dry conditions away from direct sunlight. Store at +15°C to 25°C

Shelf Life:

ARMOFLOOR PC5000 can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

Cleaning:

Tools used to mix and apply ARMOFLOOR PC5000 can be cleaned with ARMOSOLVENT before hardening. Hardened materials can only be removed mechanically.

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Remarks:

ARMOFLOOR PC5000 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 75%.
- When temperature is below 5°C or above 40°C.
- On asphalt, weak or friable concrete, PVC tiles or sheet flooring.

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.

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 ARMOFLOOR PC5000 Material Safety Data Sheet.

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