

ARMOFLOOR EC5000

High Performance Epoxy Based Floor Screed

Description:

ARMOFLOOR EC5000 is a three components, heavy duty epoxy floor screed system designed to provide high mechanical, and chemical industrial flooring. It is composed of epoxy base, hardener in addition to specially graded filler. Once mixed it produces highly durable impact resistant, abrasion resistant and withstanding floor screed. It is normally applied for a thickness up to 20 mm. ARMOFLOOR EC5000 can also be used as a repair epoxy mortar where high compressive strength is required.

Uses:

ARMOFLOOR EC5000 is generally used for industrial flooring characterised 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.
- Excellent resistance to a wide range of chemicals.
- Excellent adhesion. Bonding strength with substrate is greater than concrete cohesive strength.
- Slip resistant surface for safe trafficking.

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, sandblasting. If the substrate is restricted to access, utilise preparation by handy mechanical tools. Perform repairs to cracks, levelling of floor; filling of voids by means of LAVAPOXY Epoxy based repair products.

Apply a rich coat of ARMOPRIME EP100 to the substrate prior to application of the screed. Primer can be applied in a spread rate of 4 to 6 m²/Lt. depending on substrate porosity. Lightly broadcast QUARTZ No. 1 over the wet primer surface. Clean excess QUARTZ No. 1 after drying.

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 contents of the container. Slowly add the contents of part B (Hardener) to Part A container and mix thoroughly for 2 minutes. 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 achieved.

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

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Application:

All necessary preparations should be done before start mixing the contents 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.

Pour the ARMOFLOOR EC5000 mixture to the floor within the work area and spread the material 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 epoxy 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 epoxy surface that can directly go into service after curing. Allow 1 day for pedestrian traffic and 7 days for heavy traffic. For decorative or marking reasons, a coat of ARMOFLOOR EP150 can be applied to color the ARMOFLOOR EC5000 screed.

Standards:

ARMOFLOOR EC5000 conforms to:

- ASTM C 307, C579, C 580, D 4541, D 4060

Coverage:

ARMOFLOOR EC5000 achieves approx. coverage of 1.5 square meters per set @ 1.0 cm thickness.

Storage:

Store in original packing in dry condition away from direct sunlight in a closed warehouse.

Packaging:

ARMOFLOOR EC5000 is available in 30 kg set of 3 parts (two parts metallic containers and a bag of filler).

Shelf Life:

ARMOFLOOR EC5000 can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

TECHNICAL PROPERTIES:	
Color	: Pale grey, other colors upon request
Density (Mixed)	: $2.0 \pm 0.05 \text{ g/cm}^3$
Pot-life time at 25°C	: 45 minutes
Adhesion Strength	: 2.5 N / mm ²
Compressive Strength	: 85 N / mm ²
Tensile Strength	: 6.0 N / mm ²
Flexural strength	: 18 N / mm ²
Abrasion Resistance	: 90 mg/ 1000 cycles
Foot Traffic	: After 24 hours
Vehicular Traffic	: After 48 hours
Completely Hardened	: 7 days

Remarks:

ARMOFLOOR EC5000 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:

- Use goggles and gloves during application.
- Use only in well ventilated areas
- Avoid contact with eyes or skin.
- Avoid direct contact with flames and fire.

MATEX Rev.04-0620

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.

