

ARMOFLOOR CM4

Epoxy/Cement Screed for Humid Supports

Description:

ARMOFLOOR CM4 is a water based three-part epoxy cement floor screed, formulated especially to be applied at high humidity surfaces, to act as a barrier for subsequent layers. It is characterized with high adhesion power to damp concrete surfaces, and can be applied up to a thickness of 8 mm.

Uses:

ARMOFLOOR CM4 is designed mainly to be used as an anchoring coat for humid and green concrete supports to act as a waterproofing barrier before the application of epoxy or polyurethane coatings, or with any other waterproofing and acid resistant products. Other applications include:

- Top coat screed on humid floors in factories and stores.
- As a vapour barrier (minimum 2mm thickness) prior to installation of different types of flooring such as parquet, PVC, linoleum, etc.
- Leveling or patching horizontal concrete surfaces under epoxy, polyurethane, tiles, sheet floors, carpets or parquet.
- Can be used extended with silica sand as a patching and repairing mortar.
- As an insulation layer onto the support to improve the adhesion of floor coating resin on damp substrates.

Advantages:

- High bonding to damp concrete.
- Applied as patching mortar for horizontal surfaces.
- Water based, very low VOC.
- Ease of application, shrinkage compensated.
- Accept all types of epoxy, polyurethane or acrylic coating systems.
- Excellent chemical resistance.

- High early and final mechanical strength.
- Excellent resistance to water and oil.
- Thermal Expansion Properties similar to concrete
- It adheres perfectly to both compact and porous surfaces including stoneware, concrete, plaster, asbestos cement, etc.

Instructions for Use:

Surface Preparation:

All surfaces should be sound, clean, and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. Proper surface preparation is essential to ensure maximum bond strength between the substrate and the flooring system is achieved. 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. Consult MATEX Technical Department for further advice. Apply HYDROPLUG-cementitious water plugging mortar to stop water seepage if exists in the floor prior to the application of ARMOFLOOR CM4. For porous surfaces or old substrates, it is recommended to prime the surface with ARMOPRIME WB-water based epoxy primer before applying ARMOFLOOR CM4.

Mixing:

ARMOFLOOR CM4 is composed of three components. At the time of application, mix the contents of component A (Base) with a low speed mixer for one minute to homogenize the contents of the container. Add the contents of part B (Hardener) to Part A container and mix thoroughly the material with low speed mixer (200-300 RPM) then add Part C (Filler) while mixing continuously for an interval of 3-4

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minutes confirming a homogenous, color consistent, lump free, mixture is reached.

Application:

After mixing, allow the product to rest for 3 minutes to release entrapped air, then spread ARMOFLOOR CM4 on the prepared area to desired thickness by a clean trowel.

The product is not self-smoothing, ensure proper spreading with troweling compaction. The minimum thickness recommended is 2 mm if a vapor barrier system is required. Once the mix is leveled, remove entrapped air by using a spiked roller over the applied layer of ARMOFLOOR CM4

For batching purpose, mix graded silica sand to the mixture at a rate of 1:1 by weight and apply the mixture as a batching mortar or anchoring materials on horizontal surfaces.

It is possible to apply epoxy coating polyurethane coating, parquet, PVC or any other finishing flooring after 24 hours of applying ARMOFLOOR CM4.

Do not apply ARMOFLOOR CM4 on substrate exposed directly to the sun during peak temperature period of the day or when the temperature is higher than 35°C. In this case, it is strongly recommended to cover working area during application.

Standards:

- ASTM C579, C580, D4541

Coverage:

ARMOFLOOR CM4 achieves coverage of 6.0-7.0 square meters per kit @ 2.0 mm thickness.

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

Packaging:

ARMOFLOOR CM4 is available 25 kg set of three packs.

TECHNICAL PROPERTIES	
Color	Gray/White
Density	1.20 ± 0.03 kg/lit
Pot-life time at 25°C	>30 minutes
Bond Strength (ASTM 4541-02)	>2.0 N/mm ² (failure within concrete)
Compressive Strength (ASTM C579)	>50 N/mm ²
Flexural Strength (ASTM C580)	>12 N/mm ²
Water Absorption	NIL
Service Temperature	from -5°C to +85°C

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

Storage:

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

Shelf Life:

ARMOFLOOR CM4 can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

Cleaning:

Mixing tools should be cleaned with water after use. Hardened materials can only be removed mechanically.

Remarks:

- Should not be applied on to asphalts, PVC tiles and weak concrete.
- Should not be applied if the surface relative humidity is more than 80%.

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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 CM4 Material Safety Data Sheet.

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