

Technical Data Sheet

CEMCURE AR

Water Based Acrylic Curing Compound

Description:

CEMCURE AR is a water based acrylic concrete curing compound. When applied to freshly casted concrete it acts as a film forming curing compound which prevents rapid evaporation of water from the concrete surfaces. The film formed by CEMCURE AR acts as a barrier and retains the mix water in the concrete to ensure proper reaction and cement hydration. This would generate high surface strength, dust free, and higher resistance to abrasion and protection from drying shrinkage.

Uses:

CEMCURE AR is used as an effective and economical curing agent compared to the traditional Hessian, water and polythene curing system. It is suitable for all types of concrete surfaces, including the following applications:

- Curing of shear walls, slabs and columns newly casted.
- Concrete mixes enhanced with Micro silica and GGBS to ensure good curing.
- Can be applied for curing large areas effectively, such as pre-cast concrete, highways, decks, etc.
- Curing of Casted cement pipes
- Can be used as dustproof, clear sealer for concrete surfaces.

Advantages:

- Forms an efficient moisture barrier for optimum curing of concrete.
- Water based, environmentally friendly, VOC compliant
- Reduces surface cracking and shrinkage
- Serves as dust proofer/sealer for concrete casted floors.
- Ease of application, applied manually or by a manual spray pump.
- Eliminates the need for water curing. Reduce labour cost.
- Increases durability by promoting proper cement hydration.

Instructions for Use:

Mixing:

CEMCURE AR should be well stirred before each application. Do not apply CEMCURE AR if temperature is less than 5°C. Do not dilute with water as the product is ready to use.

Application:

CEMCURE AR should be applied uniformly by paint roller, soft bristled broom, or spraying machine to the surface of fresh concrete. The timing of application is important. CEMCURE AR should be applied after setting of cement, immediately after evaporation of the surface water. The surface should be free of bleed water and the concrete surface sheen should not be seen. It is during this time that the concrete is most vulnerable to spalling, hair cracking, and other surface defects.

In the case of vertical concrete elements, CEMCURE AR should be applied immediately upon removal of the formwork. Application on damp surface is preferable as dry concrete surface may absorb CEMCURE AR emulsion, which may cause difficulty to remove the dry film at a later stage

Apply CEMCURE AR with a rate of 0.15-0.2 Lt. per m². In certain cases, especially during high temperature or windy seasons, rate of application may be increased to avoid the surface from drying to ensure thorough penetration. Avoid puddling in low areas. If puddling occurs, brush or roll them out.

CEMCURE AR appears milky white in the container and, when first applied, leaves a bluish cast on the concrete for easy visual confirmation of coverage. It dries clear to provide a transparent semigloss finish.

After the application of CEMCURE AR, do not apply any water to the coated surface. Allow the applied product to cure in order to form an integrated strong film. Avoid compaction or vibration activities close to the treated areas as this will break the integrity of the cured film.

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CEMCURE AR should never be applied on concrete which has started to dry out, otherwise the hydration mechanism will be seriously impaired.

In normal cases, the film formed by CEMCURE AR will deteriorate slowly with time. The deterioration rate depends on weather conditions. If the dried film, fully or partially still holding, it should be removed from concrete surface prior to the application of subsequent coat finish or treatment (using water jet, light sand blast or by electrical steel brush.)

Subsequent application, as floor or wall coating systems using epoxy, polyurethane, bituminous and acrylic coatings, tile fixing using latex modified tile adhesive, cement-based plaster can only be done on concrete surfaces treated with CEMCURE AR after the removal of the cured film. It is however, recommended to check the adhesion of any particular application by carrying out a site trial test to ensure a satisfactory performance.

For further technical information on specific applications, contact MATEX Technical Office.

Standards:

- ASTM C309, Type 1, class A & B
- ASTM C156

| TECHNICAL PROPERTIES | |
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| Color/Appearance | Milky Liquid |
| Density | 1.02 ± 0.03 kg/lit |
| Moisture Loss (ASTM C156) | <0.55 kg/m ² |
| Drying Time | 1-2 hours |
| Curing Efficiency (ASTM C309) | >85% |
| Recoat Time | 2-4 hours |

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

Coverage:

CEMCURE AR coverage rate is 6-8 square meters per liter depending on surface porosity and texture.

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

Packaging:

CEMCURE AR is supplied in 20 liter jerry can & 200 liter drums.

Storage Conditions:

Store in original packing in dry conditions away from direct sunlight. Damaged packaging, high humidity or extreme temperatures may reduce the shelf life. Store between 10°C to 30°C.

Shelf Life:

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

Cleaning:

Used tools can be cleaned with water and detergent before the product dries. Hardened materials can only be removed mechanically.

Remarks:

- Weather factors such as wind, heat greatly reduce the effectiveness of CEMCURE AR.
- Use only on green, fresh poured concrete.
- Protect areas not intended for coverage. If contact occurs, clean immediately using water and a cloth or brush.
- Do not allow the product to puddle. White residue may form if CEMCURE AR is over applied.
- Do not apply when ambient temperature is < 5°C.
- In spite that CEMCURE AR is compatible with and provides good adhesion to most paints, asphalt and polymer modified cements, it is imperative that site testing be performed to determine the suitability for intended use.

CEMCURE AR

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.

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| 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
CEMCURE AR Material Safety Data Sheet.

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