

**AN ACRYLIC POLYMER BASED PROTECTIVE/ WATERPROOFING COATING, REPAIRING COMPOUND AND BONDING AGENT**

### Description

CEMCOAT AR is a milky-white, acrylic polymer based liquid. It is specifically designed for use with cement compositions. It is used in cementitious slurry as a polymer modifier to increase resistance to water penetration, improve abrasion resistance and durability. It is also used with cement as a reliable water-resistant bonding agent.

### Uses

Typical applications include:

- Waterproofing and tanking: Basements lift pits, inspection pits, water towers, liquid tanks, effluent tanks and swimming pools, basements, terraces.
- Other typical applications: bonding slurry coat, polymer modified flooring, render key coat, render modification, and patch repair mortars.

### Advantages

- Unaffected by ultra-violet light or contact with water - durable.
- Improved workability of cementitious mixes.
- Lowers water-cement ratio.
- High resistance to water penetration.
- Increases cementitious mix resistance to wear
- Excellent adhesion to a variety of building materials.
- Protects concrete from corrosive elements
- Aids ease of application
- Non-toxic. Can be used with potable water.

### Characteristics

Appearance	: Milky white liquid
pH	: > 6
Specific gravity	: 1.03 ± 0.02

### Properties of Polymer modified cementitious slurry

#### Slurry proportioning:

Cement	: 5 Kg
CEMCOAT AR	: 2 ½ Kg

#### Slurry Properties:

Fresh wet density*	: 1700 - 1900 Kg/m <sup>3</sup>
Pot Life*	: 60 min at 25°C
	: 20 min at 40°C
Recoatable*	: 6 - 12 hours
Adhesion to concrete*	: > 1 MPa (ASTM D4541)
Resistance to water head*	: 1mm thick - 4 bar
	: 2mm thick - 7 bar

\*Properties are of typical mix, and may vary depending upon mix constituents.

### Direction for Use

#### Surface preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All substrates should be cleaned and free of dust, plaster, oil, paint, grease, corrosion deposits, and any other deleterious substances.

Laitence should be removed by mechanical means. Oil or greasy deposits should be removed by suitable means. All surfaces so treated should be thoroughly washed with clean water. Smooth substrates must be mechanically roughened e.g. by scabbling, needle gun or grit/ sand blasting to provide a mechanical key.

Spalled concrete should be cut back to sound concrete and made good with using CEMCOAT AR modified cementitious mortar. All cracks and blow holes must be cut out and filled solid with using CEMCOAT AR modified cementitious slurry.

CEMCOAT AR modified waterproofing slurry is suggested only on sound substrate such as reinforced concrete slabs and tanks and do not use for waterproofing leaking brick-bate koba or lime terracing.

### Mixing

Prepare a waterproofing slurry of 1½ to 2 parts cement to 1-part CEMCOAT AR by volume, mixed to a lump-free creamy, consistency. Take a clean mixing container and fill with the measured quantity of CEMCOAT AR. Slowly add the cement to the liquid and mix, using a slow speed drill fitted with a suitable paddle. Leave the mixed material to stand for 5 minutes to allow for full saturation to take place. Remix to restore the consistency. Do not mix more material than can be used in half an hour.

### Application

Always apply waterproofing slurry coat modified with CEMCOAT AR, to pre-dampened surface. High suction substrates require more dampening than dense substrates. However, make sure there is no free-standing water. Apply by brush or broom. Mixed material must be used within 30 - 45 minutes, or less under hot weather conditions.

**First Coat:** Brush or broom the mix firmly onto the pre-dampened, prepared surface. Care must be taken not to spread the material too thinly. When the material begins to drag or “ball”, do not add more liquid/water but dampen the surface again.

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### Application

**Top protection coat:** Top coat is optional and recommended for the permanently submerged conditions or on exposed conditions (subjected to light foot traffic).

Dry-shake quartz sand in the second coat of waterproofing slurry, when still tacky to form anchors for better adhesion of protection coat to the waterproofing slurry.

Prepare a protection coat of 1 parts cement, 2 part quart sand to 1 part CEMCOAT AR & ½ part water by volume, mixed to a lump-free creamy, consistency.

Apply using flat trowel to the required thickness. (5mm thick render shall require 2 kg of CEMCOAT AR, 3 Kg of cement, 5 Kg of sand & 1 litre water / m<sup>2</sup>)

### Repair Mortar

Mix CEMCOAT AR, cement & quartz sand (Zone II) in 1:5:15 proportion by weight. Add required amount of water to achieve trowellable consistency (no exceeding 30% by weight of cement). Use this CEMCOAT AR modified mortar for repairs of substrate & filling the cracks; and making vata at the corners. (20mm thick render shall require 2 kg of CEMCOAT AR, 10 Kg of cement, 30 Kg of sand & 1-2 litre water per m<sup>2</sup>).

### Standards

It complies with BS 6319 Part 2,3,4

### Coverage

Consumption depends on application and the profile of the substrate. On fair-faced concrete, 1 mm thick polymer modified waterproof slurry shall require 0.6 - 0.8 Kg of polymer per m<sup>2</sup>.

### Curing

Correct curing of CEMCOAT AR modified cementitious slurry is important. Moisture cure for 24 hours and then allow to dry out slowly. (Note that initial curing is necessary to provide good curing conditions for the hydration of the Portland cement, then the polymer slurry must be allowed to dry out to permit the polymer particles to join together to form the continuous films and strands.)

### Packaging

CEMCOAT AR is supplied in ½ kg, 1kg,5kg,10kg,20kg & 210 kg.

### Storage and Shelf life

CEMCOAT AR should be stored above freezing temperatures. Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

**Shelf Life:** CEMCOAT AR has a minimum shelf life of 24 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact our local representative regarding suitability for use and dosage recommendations if the shelf life of CEMCOAT AR has been exceeded.

### Safety Precautions

CEMCOAT AR does not fall into the hazard classifications. However, it should not be swallowed or allowed to come into contact with the skin and eyes.

Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with the eyes it shall be rinsed immediately with plenty of water and medical advice sought immediately. If swallowed, medical attention shall be sought immediately - Vomiting should not be induced.

### Note

All Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact our local FIRSTCHOICE SPECIALITY CHEMICALS PRIVATE LIMITED representative.

### Disclaimer

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