



# ARMORCOAT 2K

## Flexible Cementitious waterproof membrane

### Product Description:

ARMORCOAT -2K is a high performing two component flexible membrane consisting of a powder and a liquid acrylic emulsion component that when mixed together form an acrylic flexible protective and waterproof coatings. Ideal for the waterproofing of Balconies, terraces, flat roofs, reservoirs, basements, tunnels, water tanks, podium desks and all wet areas.

ARMORCOAT -2K is based on Advanced Polymer technology; it possesses outstanding adhesion, mechanical properties, resistance to frost and salt water, has enhanced flexibility and excellent crack bridging properties. ARMORCOAT -2K does not contain any ingredient which could negatively affect reinforcement or concrete.

### Typical Applications:

ARMORCOAT -2K can be used for the waterproofing of the following areas:

- Podiums, Terraces, Balconies and under tile areas
- Swimming Pools, Water Fountains, bathrooms, Kitchens
- Basement walls, internal and external side
- Waterproof coatings of old and new structures, above grade and below grade, positive or negative side.
- Waterproofing system over concrete blocks, bricks, masonry and mortars
- Sealing static hairline crack in concrete not subject to movement.
- Waterproofing of Foundation and retaining walls

### Advantages And Benefits:

- ARMORCOAT -2K can withstands continuously wet and immersed environment
- ARMORCOAT -2K is flexible therefore can withstand normal substrate movement from building surfaces.
- It is certified for potable water
- ARMORCOAT -2K dries without cracking, it has low shrinkage
- Can withstand UV exposure.
- It has excellent bonding properties to screeds, renders, and tile adhesives.
- Tested up to 6 bar water pressure (60m head of pressure); positive side; tested to 1.5 bar (15m head of pressure) on negative side
- Can withstand light foot traffic
- Can be applied to damp and moist substrates and allows concrete breath

### Surface Preparation:

- Surfaces must be prepared thoroughly before commencing application. All substrates must be structurally sound, stable, dry, and clean, with substrate compressive strength at a minimum 25MPa and cohesive strength a minimum 1.5MPa.
- Smooth shiny surfaces to be roughened or etched. Rough surfaces are to be evened or filled first with Armor Repair Mortar.
- Repair all static crack, honeycombs, All surfaces are to be free from loose material, de-bonded coatings, curing membranes/agents, release agents, wax residues, foreign particles, laitance, algae and moss, grime, oils, animal fats or grease remains.

Structurally unsound layers and surface contaminants are to be mechanically removed by abrasive blasting, blast

tracking, grinding or equivalent methods according to International Surface preparation

## Mixing And Application:

### **Mixing**

ARMORCOAT -2K consists of a 20kg powder bag and 6kg Liquid keg, membrane is formed by mixing component A (Powder) and B (Liquid) together in ratio 3: 1 as illustrated below:

- Pour one part Liquid to a clean container and add three part powder
- Mix thoroughly for a period of 3 minutes with a slow mechanical mixer to a slurry consistency without any powder or lumps. Mixing manually may not achieve optimum product performance.
- Before the application Armorcoat- 2K the surface must be made damp (SSD) with water to allow proper adhesion
- Armorcoat-2k must be applied in a minimum of two layers with rollers, brush, trowel or spray gun.
- In areas with Micro cracks or prestressed Fiber glass should be used for the application of Armorcoat -2K

Protect fresh application from rain, frost and direct sunlight in very hot weather. Armorcoat -2K should not be applied in very cold temperatures less than 40 F.

## Method of Application:

- Roller
- Squeegee
- Brush
- Roller
- Airless Spray

## Consumption:

### **Manual Application**

Approximately 1.7kg/Sqm per mm of thickness of two layers

### **Spray Gun Application**

Approximately 2kg/Sqm per mm of thickness of two layers

**Note:** Note that consumption may vary depending on the state of the substrate

ARMORFIX tile adhesive from ARMORSIL can be used for the installation of the ceramic tiles on ARMORCOAT - 2K.

## Recommendations:

- In waterproofing it is important that special attention is paid to detailing, joints, drains etc this alone is enough to make all the difference in success of the waterproofing project
- Do not apply when rain is imminent, However application two hours before rain will still be effective
- Do not add cement, sand or gypsum to ARMORCOAT -2K
- ARMORCOAT -2K should be applied in two coats, which must not be more than 2mm per coat
- ARMORCOAT -2K should be applied to dampen substrate( SSD) and not surface saturated with water
- ARMORCOAT -2K first and second coat should be applied at the earlier of two hour from each other or as soon as the first coat has dried.
- For large areas, after the application of ARMORCOAT -2K, ARMORSIL self-Absorbent fabric should be

installed on the first coat, it should be trowel pressed into the first coat, the second coat should then be applied after two hours.

- For areas where tiles are to be installed, ARMORCOAT -2K should be allowed to cure for two days before the installation of tiles.

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#### Packaging:

- 20Kg Powder
- 6Kg Liquid

#### Storage:

ARMORCOAT -2K Powder can be stored in a cool dry place for a period of 12 months, while the component B can be stored for a period of 24 months.

#### Cleaning:

**When still in fresh state** ARMORCOAT -2K can be cleaned with copious amount of water. However, after hardening it can only be cleaned from equipment and tools through mechanical means.

AMORCOAT 2K: two component flexible cementitious membrane for waterproofing balconies, terraces, bathrooms, swimming pools and for protecting concrete in compliance with the requirements of EN 14891 and EN

1504-2, EN 1504-9 coating (C) principles PI, MC and IR

#### Technical Data

PRODUCT IDENTITY	Comp. A	Comp. B
Colour	Grey	White
Consistency	Powder	Liquid
Density (g/cm <sup>3</sup> )	-	1.1
Bulk density (g/cm <sup>3</sup> )	1.4	-
Dry solids content (%)	100	50

## Application Data of Product(at +20°C-50% R.H):

Colour of mix	Grey
Mixing ratio	Component A : component B = 3 : 1
Consistency of mix	Plastic, trowelable
Density of mix (kg/m <sup>3</sup> )	1,700
Density after application by spray (kg/m <sup>3</sup> )	2,200
Application temperature range	From +8°C to +35°C Pot life of mix 1 hour

## Health And Safety Instruction:

Performance characteristic	Test method	Requirements according to EN 1504-2 coating (C) principles PI, MC and IR	Performance figures for Armorcoat 2k	
Impermeability to water, expressed as capillary absorption (kg/m <sup>2</sup> .h <sub>0.5</sub> )	EN 1062-3	<0.1	<0.05	
Permeability to water vapour – equivalent thickness of air S <sub>D</sub> (m)	EN ISO 7783-1	Class I: S <sub>D</sub> <5m (permeable to vapour)	S <sub>D</sub> =2.4	U =1200
Static crack bridging at -20oC expressed as maximum crack width (mm)	EN 1062-7	From class A1 (0.1mm) to class A5 (2.5mm)	Class A3 (-20oC) (>0.5mm)	
Dynamic crack-bridging at -20oC of a film of Armorcoat 2k reinforced with fiber glass expressed as resistance to cracking cycles		From class B1 to class B4.2	Class B3.1 (20oC) No failure of the test piece after 1,000 crack cycles with movement of crack from 0.10 to 0.30 mm	
Adhesion to concrete – after 28 days at +20oC and 50% R.H (N/mm <sup>2</sup> )	EN 1542	For flexible systems with no traffic > 0.8 with traffic >1.5	1.0	
Thermal compatibility to freeze/thaw cycles with de-icing salts, measured as adhesion (N/mm <sup>2</sup> )			0.8	
Permeability to carbon dioxide (CO <sub>2</sub> ) – diffusion in equivalent air layer thickness S <sub>DCO2</sub> (m)	EN 1062-6	>50	>50	
Elasticity expressed as elongation – after 28 days at +20oC and 50% R.H. (%)	DIN 53504 modified	Not required	30	

Reaction to fire	EN 13501-1	Euroclass	C, s1-d0
Adhesion to concrete – after 7days at +20°C and 50% R.H + 21 days in water (N/mm <sup>2</sup> )	EN1542	Not required	30
Impermeability to water under pressure (1.5 bar for & days of positive lift)	EN 14891-A.7	No penetration	No penetration
Crack-bridging ability at +23°C (mm)	EN 14891-A.8.2	>0.75	0.9
Crack bridging ability at -20°C (mm)	EN 14891-A.8.3	>0.75	0.8
Initial adhesion (N/mm <sup>2</sup> )	EN 14891-A.6.2	>0.5	0.8
Adhesion after immersion in water (N/mm <sup>2</sup> )	EN 14891-A.6.3	>0.5	0.55
Adhesion after application of heat source (N/mm <sup>2</sup> )	EN 14891-A.6.5	>0.5	1.2
Adhesion after freeze thaw cycles (N/mm <sup>2</sup> )	EN 14891-A.6.6	>0.5	0.6
Adhesion after immersion in basic water (N/mm <sup>2</sup> )	EN 14891-A.6.9	>0.5	0.6
Adhesion after immersion in chlorinated water (N/mm <sup>2</sup> )	EN 14891-A.6.8	>0.5	0.55

\*All data are based on laboratory conditions. In practice, climatic variations such as humidity and temperature may affect these values

### Health And Safety Instruction:

ARMORCOAT -2K Component A contains cement that when in contact with bodily fluid may cause irritation and other allergic reaction to those predisposed. . Safety gloves and goggles should be worn when mixing or applying ARMORCOAT -2K .Component B is not known to contain any hazardous substance and not considered dangerous according to present regulations



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