

ARMORCOAT 1K

Flexible Cementitious waterproof membrane

Product Description:

ARMORCOAT -1K is a high performing polymer modified one component cementitious membrane, which is mixed with water to form a dense, semi-flexible waterproof barrier. ARMORCOAT -1K is designed for positive and negative side waterproofing on concrete and masonry surfaces. ARMORCOAT -1K is suitable for the waterproofing of terraces, balconies, under tiles, bathrooms, water tanks, basements, lift pits and other wet areas.

ARMORCOAT -1K is based on Advanced Polymer technology; it possesses outstanding adhesion, mechanical properties, resistance to frost and salt water, it has enhanced flexibility and excellent crack bridging properties. ARMORCOAT -1K does not contain any ingredient which could negatively affect reinforcement or concrete.

Typical Applications:

ARMORCOAT -1K 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

ARMORCOAT -1K can also be used for the Damp proofing treatment of walls and other mineral Substrates.

Advantages And Benefits:

-) ARMORCOAT -1K can be used for both negative and positive side waterproofing.
-) Can continuously withstand extreme hydrostatic pressure
-) It is certified for potable water
-) ARMORCOAT -1K dries without cracking, it has low shrinkage
-) Can withstand UV exposure.
-) Because it is one component, and mixed with water, it is easy to use.
-) 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 foot traffic
-) Can be applied to damp and moist substrates and allows concrete breathe

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:

ARMORCOAT -1K is packed in a 20kg bag and should be mixed as illustrated below:

-) Pour 5.5 to 5.8 Liters of clean water into container, slowly add Armorcoat-1K and continue mixing.
-) 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 of Armorcoat- 1K, the surface must be made damp (SSD) with water to allow proper adhesion
-) Armorcoat-1k must be applied in a minimum of two layers with rollers, brush, trowel or spray gun.
-) In areas with Micro cracks or pre-stressed Fiber glass should be used for the application of Armorcoat -1K
-) Protect fresh application from rain, frost and direct sunlight in very hot weather. Armorcoat -1K should not be applied in very cold temperatures less than 40⁰F

Technical Data:

Appearance : Grey or White Powder When mixed: Grey Viscous Slurry When Dry: Grey Film		
Test	Results	Methods
Comprehensive strength	22.7MPa at 28 days	ASTM C-109
Flexural Strength	2.3MPa at 28 days	ASTM-348 modified
Bond/Adhesion	>1.5MPa	ASTM-C321
Crack Bridging at high temperature	>0.75mm	
Permeability	1.5 Bar positive and Negative water head	DIN 1048
Bond strength at immersion in Water	>0.5	
Reaction to fire	Class E	
Bond strength after application of heat source	1.5	EN 14891-A

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

Recommendations:

-) 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 -1K
-) ARMORCOAT -1K should be applied in two coats, which must not be more than 2mm per coat
-) ARMORCOAT -1K should be applied to dampen substrate(SSD) and not surface saturated with water
-) ARMORCOAT -1K 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 -1K, ARMORSIL self-Absorbent fabric should be installed on the first coat, it should be trowel pressed into the first coat, and the second coat should then be applied after two hours.
-) For areas where tiles are to be installed, ARMORCOAT -1K should be allowed to cure for two days before the installation of tiles.

ARMORFIX tile adhesive from ARMORSIL can be used for the installation of the ceramic tiles on ARMORCOAT 1K.

Consumption:

1.1Kg/m² per mm of thickness

Packaging:

20Kg Bags

Storage:

ARMORCOAT -1K can be stored in a cool dry place for a period of 12 months.

Cleaning:

When still in fresh state ARMORCOAT -1K can be cleaned with copious amount of water. However, after hardening it can only be cleaned from equipment and tools through mechanical means.

Health And Safety Instruction:

ARMORCOAT -1K 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 -1K. If ARMORCOAT -1K comes in contact with bodily fluid or eyes rinse immediately with copious amount of water and seek medical attention immediately. Please refer to the most recent MSDS for more information.

Limited Warranty

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.

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