

DESCRIPTION

Bitucem-2M is a two component polymer modified flexible cementitious coating product used for waterproofing water retaining structures. It composed of special type of cements, bonding agents, selected fillers and special additives (component A) and water based synthetic acrylic co-polymer (component B).

Bitucem-2M is supplied in a pre-packed form that has been designed to be easily mixed on-site using a slow speed drill and paddle and then applied to the substrate using a brush, roller, and trowel or by spray application. When the two components are mixed it produces a workable mortar that can be applied either horizontally or vertically which adheres to concrete and masonry supports. Once cured, it forms a waterproofing and flexible layer resistant against aggression of chlorides and sulphates.

APPLICATION

Bitucem-2M can be applied as a high quality flexible cementitious water proofing membrane in different applications including:

- Swimming pools and water reservoirs, water tanks and canals.
- Wet areas waterproofing. Baths and kitchens.
- Balconies, terraces, bathrooms, kitchens prior to floor tiling.
- Retaining walls shafts, basements and foundations.
- Protection of concrete structures exposed to chemical aggression.
- To protect substrates exposed to deformation or vibration.
- Can be used as protection of concrete and masonry in contact with soil.
- To protect cracked plastering against water or steam penetration.
- Can be applied in maintenance on top existing ceramic or marble flooring as a waterproof coating prior to fixing new tiles.

TECHNICAL DATA

PROPERTIES	RESULTS
Color	Cement Grey or White. Colored upon request.
Appearance	Comp. A - Powder Comp. B - Liquid
Density	Comp. A - 1.55 kg./Lt. Comp. B - 1.05 kg./Lt.
Tensile Strength	> 1.00 N / mm ²
Positive Pressure Resistance	> 5 bar
Recoating Interval	4 - 8 hours
Adhesion to Concrete	> 1.30 N / mm ²
Wet Density Shore A	1.70 ± 0.05 g/cm ³
Hardness Pot-Life Time	30
After mixing at 25°C	45 minutes
Heat Resistance	-30°C to +90°C
Pot Life of Mix	40 minutes
Noxiousity According to ECM 88/379	NIL
Moisture Vapor Transmission	> 300 g/m ² /day
Temp. Of Application	from +5°C to +35°C
Elastic Module (compression)	500 N/mm ²
Crack Bridging at Breakage	> 1.0 mm
Elongation	60% (un-bonded)
Chloride Penetration	NIL
Drying Time	8 hours
Curing Time Before Application of Tile	48 hours
Drying Time Before Waterproofing Testing	3 days

STANDARDS

BITUCEM-2M conforms to:

- ASTM D4541-02, ASTM D412, ASTM E96
- DIN 1048
- EN 12390/8

SHELF LIFE

BITUCEM-2M can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

PACKAGING

BITUCEM-2M is available in set of 20 kg powder bag and 8 kg liquid jerkin.

STORAGE

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

BITUCEM-2M

Two part elastomeric cementitious waterproofing mortar



ADVANTAGES

- Excellent mechanical and abrasion features.
- For external and internal application on both old and new surfaces.
- Positives pressure applications up to 5 bars.
- Polymer modified, therefore, reduces permeability and improves adhesion and mechanical strength.
- Durable and low maintenance cost.
- Excellent resistance to a range of chemicals.
- Excellent adhesion to substrate. Bonds to green or damp concrete.
- Breathable, water vapor preamble.
- Durable, excellent resistance to UV.
- Excellent protection on against carbon dioxide, chloride ions and water.
- Non-toxic, suitable for drinking water.
- Provides flexible crack bridging when cured up to 2.0 mm.
- Compatible with various types of coatings, tile adhesives and topping.



CLEANING

Clean all tools with water before product hardens.

REMARKS

BITUCEM-2M is a cement product. All precautions for concrete practice must be followed. For application in drinking water tanks, wash the applied coat thoroughly with plenty of water while scrubbing the surface with sponge before using the tank. During the peak temperature of the day in the summer season, working area should be covered to prevent direct sun effects. Keep mixing tools in shade.

INSTRUCTIONS FOR USE

SURFACE PREPARATION

All surface should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds: dirt, oil and grease. Ensure that concrete surfaces are cured for at least 14 days before coating the product. It is recommended to level and smooth the surface in order to avoid build-up of the product. Create at junction between wall and floor a 45°C fillet with LAVAREP F40 OR LAVAREP F60. For hard laitance or contamination, clean the concrete surface with mechanical preparation method, like captive blasting or sand blasting. If the substrate is restricted to access, utilize preparation by handy mechanical tools and wire brush discs. Degraded concrete structures must be repaired with a suitable repair product. Exposed reinforcement bars must be treated with LAVAFER corrosion agent. If any cracks reveals at concrete surface after blasting, check if cracks are superficial or penetrating the concrete body, then check if the crack is static or dynamic. For superficial cracks, apply a cementitious repair mortar. For dynamic superficial crack, apply a paste mixed from the same product BITUCEM-2M as filler to the crack. Whereas, if the concrete, use flexible injection resins to fill the cracks prior to application of BITUCEM-2M. Before application starts, saturate the substrate with water to eliminate possible water absorption at the moment of application.

MIXING

BITUCEM-2M is supplied in pre-measured two component kit, a powder part A and liquid part B. pour the liquid (part B) into the container and then add slowly the contents of the powder bag (part A), use a low speed mixer (300-400 rpm) fitted for an interval of 3-5 minutes till a homogenous lump free consistent mix is reached. Leave the mix for four minutes to release extra air entrapped within.

COVERAGE

BITUCEM-2M achieves coverage of 7.0 square meters per bag @ 2.00mm thickness.



BITUCEM-2M

Two part elastomeric cementitious waterproofing mortar



APPLICATION

BITUCEM-2M can be applied with a roller, brush or a spraying machine. Wet the surface of application thoroughly with clean water till a saturated surface dry 'SSD' condition is reached, this allows best adhesion and proper curing of the slurry. Apply the mixture with a spatula, in at least two coats in opposite direction to each other, with a thickness not more than 1mm per coat. Before the second coat is applied, make sure that the first one has hardened sufficiently. A buildup of 3.2 kg/m² will result in a final membrane film thickness of 2.00 mm. the finishing can be done with a smooth spatula, few minutes after the application. If the substrates is exposed to movement's deformation, or to increase the mechanical strength characteristics of the waterproofing membrane, or where the cracks are expected it is recommended to fix ARMOGLASS, reinforcing glass fiber mesh into the first coat if BITUCEM-2M, while still wet fully covered with the second coat to ensure monolithic integrated membrane layer formed without defected spots.

For internal waterproofing of water tanks, wet areas and swimming pools, it is recommended to treat the joints. For wet area applications, ceramic tiles laying can start after at least 2 to 3 days. As BITUCEM_2M is a flexible water proofing system, it is recommended to fix tile with compatible tile adhesive with the same elastic adhesives.



STORAGE

- Keep the products packed in a dry place.
- Keep away from direct sunlight.

HEALTH, SAFETY AND ENVIRONMENT

- Gloves and goggles should be worn by all workers during application.
- Do not breathe vapor of products.
- Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical help.

All safety measures should be observed during application. Fire extinguishers should be available at site. Care should be taken with gas, and torch should not be rested on finished surface or on any materials that can be scratched by flame or hot torch. Gloves and goggles should be worn by all workers during application.

Read, understand and follow all Material Safety Data Sheets and product label information for this product prior to use.

TECHNICAL SUPPORT

International Insulation Company (IIC) - Bitugulf technical support team consist of expert engineers offers a comprehensive service support to specifiers, end users and contractors, and on-site technical assistance.

INTERNATIONAL INSULATION COMPANY (BITUGULF)

Factory

Western Shuaiba Industrial, Block (3), Building (90),
Opposite of Kuwait Steel Co.

Telephone: (+965) 23262822, 9660 0332

Fax: (+965) 23262825

Email: info@knimco.com

Showroom

Shuwaikh Industrial, Block (A), Building (139),
Opposite to Hyundai Maintenance Center

Telephone: (+965) 24912765, 94122711

Fax: (+965) 24912776

Email: shwrm@knimco.com

Website: www.knimco.com

