BUMA-WP®

FLEX WP 2K

Semi - flexible, two components, polymer modified cementitious liquid applied water impermeable

In compliance with European standard EN 14891:2017 CMP Liquid applied water impemeable products

Flexible

Non-toxic

Multi-applications

Easy to use

SINGAPORE GREEN BUILDING COUNCIL MEMBER

VGBC Vietnam Green Building Council

LOW VOC

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FLEX WP 2K

PRODUCT DESCRIPTION

Flex WP 2K is a two components seamless waterproofing membrane polymer modified which cures to form a tough flexible membrane to protect all concrete and masonry surfaces against the ingress of water and moisture. Zero VOC certification

USES

- Waterproofing of basement walls
- Waterproofing of potable water tanks
- Waterproofing of kitchens and toilets
- Waterproofing of balconies and planter boxes
- Waterproofing of swimming pools and water features
- Waterproofing to precast gable end wall
- Waterproofing to RC flat roof and gutters

SUITABLE SUBSTRATES

- Cement mortar beds
- Cement plaster
- Existing tile and stone
- Cement backer board
- Concrete

PACKAGING

- 33.5 kgs/set: 25kgs powder/bag + 8.5kg liquid/can
- 33.5 kgs/set: 25kgs powder/bag + 8.5kg liquid/pail

COVERAGE

- 2.0 – 2.5 kg/m^2: balconies, kitchens, toilets
- 3.0 – 4.0kg/m2: basement walls, pools, roofs…

SHELF LIFE

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years* if stored off the ground in a dry area and low temperature

* High humidity and temperature will reduce the shelf life of bagged product

LIMITATIONS

- DO NOT use over dynamic expansion joints, structural cracks or cracks with vertical differential movement
- DO NOT use for thick coat (more than 2kg/m2/layer)
- DO NOT use over cracks >0.75mm in width
- DO NOT expose to negative hydrostatic pressure, excessive vapor transmission
- DO NOT add water, cement or fine aggregate to mixture
- DO NOT use for lightweight concrete (AAC block, panel…)
- DO NOT apply product if moisture of substrate higher than 16%, relative humidity higher than >85%
- During hot weather, keep product out of direct sunlight (powder and liquid)

INSTALLATION

Concrete substrate preparation

- Concrete surface should be structurally sound, clean and free from all dirt, oil, grease, adhesives, paint, sealers or curing compounds
- Repair cracks present in the concrete substrate with **BUMA-SP Bond 81** by injection method
- Concrete surface must be mechanically roughened prior to application. All substrates must have minimum ICRI CSP 2 to 3 (Grinding, high pressure water-jet blasting, light sandblasting, scarification...Bonding strength of surface must be at least 1.5MPa according to ASTM C1583
- Dampened the substrate before application

Mortar bed/ plaster substrate preparation

- Cementitious surface must be fully cured (7 days per 10mm thickness)
- Cementitious surfaces should be structurally sound, clean and free from all dirt, oil, grease, adhesives, paint, curing compounds
- Bonding strength of surface must be at least 0.5MPa according to ASTM C1583
- Dampened the substrate before application

Existing Ceramic Tile, Stone or Cement Terrazzo substrate preparation

- All tile and stone must be well adhered to the substrate and free from any bond breaking or bond-inhibiting surface contaminates. Ensure bond strength of the tile or stone to the substrate is a minimum 0.5MPa. If the floor does not pass 0.5MPa pull out strength test, must remove the tile or stone
- Existing tile or stone should be abraded by mechanically method
- Wash and rinse thoroughly with clean water. Allow to completed dry

Mixing

- Mixing ratio: mix 3.0 kg powder mix with 1.0 kg liquid
- Well shake liquid (Part A) and pour to clean pail
- Add **Flex WP 2K** powder (Part B) to liquid and mix with low speed mixer (to avoid air bubbles in mixture) to a smooth, fluid consistency.
- Avoid powder stuck the sides or the bottom of mixing pail

Application

- For horizontal and vertical surfaces, a roller, brush or spray gun can be used to apply the slurry. Care must be taken to ensure that air is not entrapped in the membrane
- Ensure that all joints and corners are properly coated, preferable with a brush at the beginning
- **BuMaTape/ BuMaBand** is also recommended at

FLEX WP 2K

joints and corners where movement is expected
- Apply the first coat of **Flex WP 2K** and allow it to dry. Allow membrane to dry for approximately 1-2 hours before application of the second coat
- Apply the second coat of **Flex WP 2K** at right angles to the first coat, allow a minimum curing time at least 72 hours before laying tile or commencing ponding test
- For exposed applications, **BuMaMesh 150/75** should be incorporated. Apply the first coat of **Flex WP 2K** and immediately incorporated **BuMaMesh 150/75**. Apply subsequent coats at right angles to the last coat while ensuring ample coverage at all joints and corners

Installing tiles on Flex WP 2K
- Allow **Flex WP 2K** to cure 72 hours at 29°C and 50%RH before covering with tiles
- Ceramic/ porcelain/ granite tile, natural stone must be installed by the thin bed method with a Bumatech C2 Thin-Set Mortar: **BuMaSet, BuMaBond, BuMaFlex, BuMaEco + Ceralastic, Porcerapid**

Installing skimcoat or acrylic coating
- Allow **Flex WP 2K** to cure 7 days at 29°C and RH≥50% before covering with skimcoat or another acrylic resin-based paint such as: **BuMaSkim, Skim 2in1, Proof 668…**

Cleaning
- Due to high adhesion strength of this product (even on metals), tools should be washed before mixture becomes harden
- Once mixture setting, cleaning can only be carried out by mechanical method

SAFETY PRECAUTIONS
- In case of contact with the eyes, rinse with running water (10-15min)
- Wear protective gloves, clothing and eye and face protection.
- Avoid inhaling dust/fume/mist of product (when use spay application)
- Ensure adequate ventilation during mixing and application
- Material Safety Datasheet will be supplied upon request

DISCLAIMER
- Technical details and reccomendations contained in this product datasheet correspond to the best of our knowledge and experiences at the time of printing
- These detail offered for user's consideration and evaluation. It is the responsibility of the user to conduct their own tests to validate the suitability of the products for their requests
- Technical details and reccomendations can be changed by site condition and workmanship of applicators.
- As we have no control over site conditions and the execution of the work, we accept no liability for any loss or damage which may rise as a result thereof. We also reserve the right to update the information at any time without prior notice to you to reflect our ongoing research and development program
- The newest technical date sheet will be supplied upon user request

TECHNICAL SERVICES/ AVAILABILITY

Information is available by calling

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PRODUCT PERFORMANCE PROPERTIES

Test	Test Method	Specification	≥ 3.5 kg/m2
Initial tensile adhesion strength	BS EN 14891	≥ 0.5 N/mm^2	≥ 1.3 N/mm^2
Tensile adhesion strength after **water contact**		≥ 0.5 N/mm^2	≥ 1.0 N/mm^2
Tensile adhesion strength after **heat ageing**		≥ 0.5 N/mm^2	≥ 1.4 N/mm^2
Tensile adhesion strength after **contact with lime water**		≥ 0.5 N/mm^2	≥ 1.2 N/mm^2
Tensile adhesion strength after **contact with chlorinated water**		≥ 0.5 N/mm^2	≥ 1.2 N/mm^2
Water impermeability		No Penetration	Pass
Crack bridging ability		≥ 0.75 mm	≥ 0.75 mm
28 Days Elongation at break	ASTM D412	n/a	≥ 15%
Maximum tensile strength			≥ 1.5 MPa
Shore A hardness	ASTM D2240		≥ 75
Pot life (35^{0}C, RH ≥ 60%)	n/a	n/a	~ 45 minutes
Tack free time (35^{0}C, RH ≥ 60%)			~ 2 hours
Fully cure (35^{0}C, RH ≥ 60%)			~ 7 days

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions