



DESCRIPTION

Umbrella Shield is pre-packed two component powder and liquid polymer, consists of processed cements and special fillers that can be applied on well-prepared sound substrates to provide extremely tough, durable waterproof render. 2-3 mm thick for water tanks, basements etc. Umbrella Shield-Polymer modified is a two-component high flexible slurry, strengthened with fibres and designed for waterproofing and damp-proofing on deformable and non-deformable mineral substrates – suitable for internal and external use on walls, floors and ceilings.

CHARACTERISTICS

- Highly waterproof
- Flexible
- Crack bridging ability – a 2 mm thick film can cover cracks up to 2mm wide
- Excellent Elongation at failure (> 100%)
- Reinforced with fibres
- Weather and frost resistant
- UV resistant
- Dust reduced
- Compatible with sealing tape
- Compatible with ceramic, vitrified, mosaic Tiles and natural stone coverings
- Can be applied by brush, roller, trowel or mechanical spray
- Protects reinforced & standard concrete structures
- To protect concrete from water, carbonation and de-icing salts

SCOPE OF USE

- It can be applied on balconies and terraces (including cantilevered types), permanent and temporary wet rooms, bathrooms, showers, swimming pools, and on walls and floors as a waterproofing layer used underneath coverings associated with tile adhesives.
- It can also be used for waterproofing and concrete protection structures embedded in the ground (basement walls, foundations, etc.), plinth zones and water tanks, including drinking water, municipal sewage treatment plants and septic tanks.
- UMBRELLA SHIELD coating delays the carbonation process and provides effective anti-corrosion protection for concrete/reinforced concrete land and water structures (e.g. garages, pillars, bridges) against severe atmospheric conditions and aggressive substances dissolved in water (e.g. de-icing salts, seawater). UV resistant. VOC low emission. Proven radon tightness.

SUBSTRATE PREPARATION

UMBRELLA SHIELD can be applied on the following mineral substrates where even, solid, loadbearing, clean, crack-free and free of substances that may impair adhesion (e.g. fats, bituminous or dust): concrete (over 28 days old), cementitious plaster and composite screeds (over 28 days old), fast hardening screed mortar (minimum 3 days old), walls made of ceramic bricks, hollows and concrete blocks with flash joints (over 28 days old), cement-fibre boards. Other substrates: gypsum boards, OSB and chipboards (minimum 25 mm thick on floor and 18 mm thick on walls) and old tiles.

- Remove dirt, layers of low strength, and all paint coatings and release agents. For mineral construction substrates that must be even and absorbent, it is recommended to use sandblasting or high-water pressure for cleaning.
- Enlarge the stable cracks and fill them with polymerised cement mortar or crack fillers or alternatively with epoxy resin. Compensate hollows and irregularly shaped substrates with cement mortar.
- Chisel out or grind sharp protrusions.
- All edges must be cut off or chamfered to approximately 3 cm., concave corners must be rounded with moulding of 2-3 cm radius. UMBRELLA SHIELD requires pre-wetting of the mineral substrate before application, while avoiding formation of puddles. In case of insulation against negative water pressure, substrate must have sufficient strength.

APPLICATION

- UMBRELLA SHIELD is supplied in premeasured units of 10kg powder (Part A) and 05kg liquid (Part B) and should be mixed on site utilising clean containers. Slowly add the powder to the liquid and mix, using a slow speed (300rpm) drill fitted with a suitable paddle. Mix the material which can be used in 60 minutes. Do not apply to dry concrete.
- The quantity obtained must be applied within 60 minutes. The first layer will be applied consistently with a brush or trowel on prepared surface. When successive layers are applied, the next layer must only be applied when the previous layer is hardened, Interval time between two coat is approx. 4-5 hrs. Work must not be interrupted for more than 12 hours.
- Do not apply the UMBRELLA SHIELD to a substrate that shows the signs of standing water on the surface. Apply second coat after First coat is dry to touch, perpendicular to the direction of the first coat. The Wet film thickness per coat should be 1 mm.
- The freshly applied product must be protected against drying too fast.
- The coating can be walked on after two days; however, even after complete hardening, the coating must not be directly exposed to heavy mechanical loads.

- Keep the freshly applied coating in the normal conditions for at least 3 days. Protect UMBRELLA SHIELD against rain for at least 72 hours. Tiles, plasters or flooring can be applied on a layer of UMBRELLA SHIELD after 7 days at the earliest from drying out too quickly, frost and precipitation. Installation of covers protecting from direct sunlight, draughts, rain and frost is recommended. Do not cure the mortar by pouring or spraying water.
- After every roller application, the surface must be smoothed with a trowel (while fresh). The thickness of a single layer of UMBRELLA SHIELD should not exceed 2.0 mm. UMBRELLA SHIELD should also be applied outside the protected area with an additional margin of at least 0.5 m.
- Tools and fresh stains should be washed with water.
- When hardened, the slurry can only be removed mechanically. In case of horizontal insulation under ceilings, insulation of horizontal strip foundations and insulation on cantilevered balconies and terraces, it is recommended to embed a technical fleece with a maximum weight of 50-80 GSM between UMBRELLA SHIELD layers. For cantilevered type of balconies or terraces, be extremely careful not to mechanically damage the previously installed insulation. For this purpose, protective pads should be used to protect the insulation and act as a sliding layer.
- To improve further elongation & crack bridging ability, polypropylene fibre mesh / fabric can be used between 2 coats of UMBRELLA SHIELD.

PLEASE NOTE

- Protect the waterproofing coat against damage with protective mortar. Do not cover it with gypsums materials.
- Always follow all generally recognized rules of waterproofing technology as well as applicable national standards.
- The mixed material must be used within 60 minutes (at 23°C and 50% R.H.). If the material becomes stiffer during this time, it is recommended to stir it occasionally. No extra water or liquid should be added. In case of roller application, use a structure nylon type roller for thick materials' application (e.g. for skim coats).
- Before the work is finished, it is essential to check if the required thickness of UMBRELLA SHIELD has been applied to the substrate – the minimum final thickness of the layers is 2 mm in 2 coats.
- The applied slurry needs to be protected for at least 12 h to prevent it from drying out too quickly, from frost and from precipitation. Installation of covers to protect from direct sunlight, draughts, rain and frost is recommended.
- Do not cure the mortar by pouring or spraying water. Wait a minimum 24 hours from the application of UMBRELLA SHIELD before laying tiles, and 3 days before applying coats of paint. When covering the waterproofed surface with tiles, always use a tile adhesive of minimum quality C2. Even when fully dry, the coating must not be directly exposed to heavy mechanical loads.
- UMBRELLA SHIELD contains fibres that further strengthen the coating while at the same time reducing dusting of the material during mixing.
- Compound A is corrosive, and the cement content gives the material alkaline properties.
- Skin and eyes must therefore be protected. If contact occurs, rinse thoroughly with plenty of water. In case of contact with eyes, obtain medical advice immediately.
- Keep out of reach of children. For professional use only. Please refer available Material Safety data sheet.

GENERAL DATA

1. Appearance	: Part A: Powder	Part B: Liquid
2. Colour	: Part A: Grey	Part B: White
3. Mixing Ratio (By Weight)	: Part A: 2	Part B: 1
4. Mixing Consistency	: Homogeneous mix with fluid-brush able consistency	
5. Pack Size (A+B)	: 15 Kg Combo Pack (A+B)	
	10 Kg Powder	: Part A
	05 Kg Liquid	: Part B

TECHNICAL DATA

1. Density (g/ml)	: Part A:1.10	Part B: 1.03
2. Pot Life	: 60 minutes	
3. Application Temperature	: From 5 to 35	
4. Adhesion to concrete after 28 days curing	: > 1.50 N/mm (ASTM D 4541)	
5. Elongation After 28 Days	: > 100 % (ASTM D 412)	
6. Tensile Strength	: > 1.20 N/mm ²	
7. Water Absorption	: Negligible	
8. Permeability to Water Vapour	: Pass	
9. Impermeability to Water Under Pressure	: No penetration	
10. Crack Bridging Ability	: up to 2 mm (ASTM C 836)	
11. Recoat Time	: 4 -5 hours	
12. Recommended Coating Thickness	: 2mm (1mm/coat)	
13. Consumption	: Approx. 1.65 kg/m ² /mm thickness	

SHELF LIFE

Until 24 months since the date of Stored in undamaged dry conditions and original packaging.

The product is classified as per ASTM C836, ASTM D412, ASTM D4541 Standards.

OTHER INFORMATION

For more information or support or guidance, please consult our technical expert at:

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The above information, in particular recommendations for the handling and use of our products, is based on our professional knowledge and experience. As materials and conditions may vary with each intended application and thus are beyond our influence, we strongly recommended that in each case sufficient tests are conducted to check the suitability of our products for the intended application method and use. Legal liability cannot be accepted on the basis of the contents of this technical data sheet or any verbal advice given unless there is evidence of wilful intent or gross negligence on our part. This technical data sheet supersedes all previous editions. Apart from the information given in this technical data sheet, it is also important to observe the relevant guidelines and regulations of various organizations and trade associations, as well as the applicable standards. Works should be carried out in dry conditions, with ambient and substrate temperature of +23° C and relative air humidity of 50%. In different conditions, the material parameters can differ