Beyem Proof

One-component, cement-based, polymer modified mortar for concrete surface protection and waterproofing

EN 1504-2





About this product

BEYEM PROOF is a one-component, cement based, polymer modified high strength mortar for concrete surface protection and waterproofing. Formulated with special cements, selected aggregates, organic additives and resins to improve adhesion and waterproofing. Specially suitable for containing water. Approved for potable water contact. Sea-water and sulphate resistant.

Benefits

- Modified polymer mortar (PCC).
- High mechanical strengths. Excellent adhesion.
- Waterproof up to 1,2 atm of pressure positive lift.
- Suitable for pump machines and manual applications.
- Waterproof and permeable to water vapour. Fast hardening without cracking.
- Both internal and external use.
- Sea-water and sulphate resistant.
- Great plasticity.

Use

Concrete surface protection according to the MC and RI principles: Moisture Control (MC) by surface coating and Increasing Resistivity (IR) by limiting moisture content. Waterproofing of foundations, basement walls, cellars, concrete slabs, walls, tanks, swimming pools, cellars, planters, lift pits, balconies, terraces, bathrooms, showers… Protection of buildings against water damage.

Substrates

BEYEM PROOF is suitable for:

- Concrete
- Cement based substrates
- Rendering and plastering mortar
- BEYEM's concrete repair mortars.

Preparation of substrates

Concrete must be free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. Where necessary, concrete must be cleaned by sandblasting, high pressure water jetting or other approved mechanical methods that do not cause vibration or impact, to leave a clean and keyed surface. Absorbent substrates should be previously wetted until they are saturated, preventing waterlogging, and applying the mortar once the surface has a matt appearance. Smooth, slightly absorbent or very damaged substrates should be treated to obtain a surface with minimum guarantees of roughness and tensile strength. For more information regarding substrate preparation, refer to the recommendations provided in EN 1504-10.

Instructions for use

Mix manually or mechanically BEYEM PROOF with 4,75-5,75 l per bag of clean water until a homogeneous, and lump-free paste is obtained. Let the mix stand for 5 minutes before application.
Apply a minimum of 2 layers by spray render or by hand (using a trowel). The first layer should be apply with a little less consistency to saturate the substrate. Apply the second layer while the first coat is still fresh. If the final thickness must reach 5 mm, three layers of product should be applied.

Cautions and recommendations

- Do not apply below 5°C or above 30°C.
- Do not apply when there is risk of frost, rain, strong wind or direct sunlight.
- Do not add water in excess of the recommended dosage .
- Waterproofing of substrates that can undergo small movements or with little cracks, must be carry out with BEYEM PROOF FLEXIBLE.
- Critical areas as fillen joints between vertical and horizontal elements must be treated with a dry mortar to minimize the application angle of BEYEM PROOF.
- Apply preferably on the positive side, that is, on the one that receives the water pressure.
- Applied on negative side, there are risk of detachment if water pressure is higher than adhesion of material.
- Protect the mortar applied of early dehydration, using suitable curing methods. The curing operation in humid environment is essential for at least 24 hours after application.
- Do not apply on gypsum, metal or wood.
- Mix only sufficient material that can be applied using available labour and equipment.
- BEYEM PROOF must cure for a minimum of 3-7 days before receiving mechanical loads.
- Water pressure loadable after 7-14 days.

Technical data

Product identity. Properties of mixture and application data

Appearance	Powder
Color	Grey
Grading	0-800 µm
Density of the mix	≈ 1860 Kg/m^3
Mixing water,%	± 21 %
Maximum application thickness	2-5 mm
Coverage	
2 mm thickness (without water pressure)	≈ 3 Kg/m^2
5 mm thickness (with water pressure)	≈ 6 Kg/m^2
Tariff code	3824.50.90.00

Final performances

Type	Surface protection mortar for concrete EN 1504-2
Bond strength	≥ 1,0 MPa
Compressive strength	≥ 30,0 MPa
Capillary absorption and permeability to water	W < 0,1 kg/m^{2}h$^{1/2}$
Water vapour permeability	Class I: S_D < 5 m
Reaction to fire	Euroclass A1

Packaging

BEYEM PROOF is packed 25 kg plastic lined paper bags.
Storage: when stored unopened in a cool dry place, shelf life is 12 months from date of manufacture.

Cleaning tools

Tools can be cleaned easily with water before the product hardens. Hardened product can be removed only mechanically.

Project specification

Surface protection of concrete and waterproofing must be carried out with one-component, cement based, polymer modified high strength mortar, compliant with EN 1504-2 and according to Principle 2, method 2.3 and Principle 8, method 8.3 of EN 1504-9, such as Beyem Proof, manufactured by Rodacal Beyem Company. Coverage will be ≈ 1,5 kg / m² per mm of thickness.

Health and Safety

For further and complete information about the safe use of our product please refer to our latest version of the Safety Data Sheet, which is available upon request.
Disposal of the product and packaging must be in accordance with current legislation. This is responsibility of the final product user.

Certifications

ER-1089/1999

IDI-0004/2012

Migration of salts certificate
nº 10/1769-2088

Contact

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Note

Product for professional use
The above guidelines and information is accurate to the best of our knowledge and is offered in good faith. This information is true and accurate, but as conditions of use and any labor involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors.

End user should ensure that he has our latest literature, copy of which will be sent upon request.