

hydroflex cool•roof

**flexible UV-resistant
2-component cementitious
waterproofing mortar**

class A5

- High UV resistance
- Excellent elastic performance even at -10°C
- Crack-bridging properties >2.50mm
- Protects concrete structures from carbonation



HYDROFLEX COOL•ROOF

**flexible UV-resistant 2-component
cementitious waterproofing mortar**

DESCRIPTION

Ultra-white, flexible, 2-component cementitious mortar, for waterproofing of exposed and non-exposed surfaces, protecting them against moisture and water under pressure.

Mixing of component A into component B forms, at the cured state, a flexible seamless membrane impermeable to water against positive or negative hydrostatic pressure, that adheres strongly to the substrate and is able to bridge cracks and withstand contraction-expansion and vibrations of the substrate.

It exhibits high UV resistance and excellent crack-bridging performance for cracks >2.50mm (class A5) at +23°C and >1.25mm (class A4) at -10°C.

Classified as coating mortar (C) for the protection of concrete structures according to European standard EN 1504-2.

APPLICATIONS

It is applied in two or more layers, for the waterproofing of roofs, and as a cool roof-coating since it exhibits high solar reflectance, reducing the cooling costs during the summer months.

It is ideal for waterproofing against water under pressure and substrates subject to strain and that have the tendency to develop (or already have) micro-cracks due to contraction-expansion or vibrations.

It is used for:

- Waterproofing of concrete water tanks.
- Waterproofing in baths, showers, swimming pools, roofs, balconies, etc., before the installation of ceramic tiles or other decorative layers.
- Waterproofing and protection of surfaces made of concrete, cement-based floor-screeds, bricks, AAC blocks, cement-blocks, etc., as well as cement-boards, gypsum-boards, wood, etc.
- Protection of cracked concrete and render surfaces from the ingress of moisture and other corroding agents.
- Protection of concrete surfaces exposed to saline environment.

PROPERTIES / ADVANTAGES

- High UV resistance.
- Applied as a cool roof-coating reducing the cooling costs during the summer months.
- Crack-bridging properties of the cured membrane. It withstands contraction-expansion and vibrations of the substrate.
- Strong adhesion to the substrate.
- Compatible to mortars used for the installation of ceramic tiles, glass-mosaics, natural stones, etc.
- Can be applied on slightly wet surfaces without priming.
- Excellent waterproofing performance.
- Vapour permeable.
- Increased resistance to ageing.
- Pre-weighted, ready-to-mix containers. - Stable product quality.

HARMONIZED STANDARDS / REGULATIONS

- **EN 1504-2:2004:** Cement-based product for the protection of concrete surfaces - Coating (C). Meets the requirements of the standard.
- **EN 1504-9:2008:** Products and systems for the protection and repair of concrete structures - General principles for the use of products and systems. Meets the requirements of the standard according to Principle 1 (PI - Protection against Ingress), 2 (MC - Moisture Control) and 8 (IR - Increasing Resistivity).
- **Regulation (EC) No. 305/2011:** CE marked product with Declaration of Performance (DoP): HFCOOLROOF/CPR-7-13/090/02-2022.

APPLICATION INSTRUCTIONS

- Application surfaces must be clean and free of dust oil residues, brittle materials, dust, etc.
- Deteriorated concrete or render sections must be removed by suitable means (manual, mechanical, sand-blasting or waterblasting) until a sound and clean substrate is obtained. Any repair works should be carried out using appropriate **FINOMIX** repairing products.

- Any protruding reinforcement bars should be cut back to a depth of 2-3 cm and the cavities repaired using suitable repair mortars (RP 4000 or RP 4100) or by using the polyurethane sealant PU•FIX.
- At internal corners (floor-to-wall junctions), a fillet with sides of approximately 5 cm must be formed using suitable repairing mortars.
- For application on renders, they must have adequate adhesion to the substrate and be fully cured.
- When applied over existing floor coverings such as tiles, mosaic, marble, etc., their stability must be assessed and they must be free from deposits or contaminants that could affect adhesion of the waterproofing layer.
- Prior to application, surfaces must be saturated with water. Excess water should be allowed to evaporate or be removed using compressed air.
- Component B (10 kg) is poured into a clean container and component A (25 kg) is gradually added under continuous stirring with low-revolution electric mixer (300 r.p.m.) until a homogeneous, lump-free mixture is obtained. The mixture should then be left to settle for about 5 minutes and remixed.
- Application is carried out by brush, trowel or by spraying in 2-3 layers, each with a maximum thickness of 1 mm, depending on the required waterproofing performance and the stress conditions of the substrate. Each subsequent layer is applied after the previous one has dried. Successive layers must be applied crosswise to ensure full coverage. In case of spray application, particular care must be taken to ensure uniform layer thickness.
- In cases of waterproofing surfaces subject to movements, contraction-expansions and prone to cracking, it is recommended to reinforce the first layer of **HYDROFLEX COOL•ROOF** by embedding a 60 g/m² fiberglass mesh. After placing the fiberglass mesh, the layer is leveled with a metal trowel. One or two additional layers are then applied, depending on the requirements and any substrate irregularities.

Particular care must be taken to ensure that the mesh is fully embedded into the mortar without the formation of voids.

- At critical waterproofing points such as joints and corners, it is also recommended to reinforce the first layer with 10 cm wide strips of 60 g/m² fiberglass mesh. The mesh strip is embedded into the first layer and covered with a second layer while still fresh
- If ceramic tiles are to be installed over the waterproofing layer, suitable cement-based adhesives classified as C2 according to EN 12004-1 must be used. The **HYDROFLEX COOL•ROOF** surface is ready to receive tiles after 5-7 days from application.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

RECOMMENDATIONS

- Temperature during application should be between +5°C and +35°C.
- Don't mix component A with water and don't add water to the mixture. Water addition affects the properties of the product.
- Do not add cement, aggregates or other admixtures to **HYDROFLEX COOL•ROOF**.
- Each layer of **HYDROFLEX COOL•ROOF** should not exceed 1 mm in thickness.
- Postpone application if high temperatures or frost are expected during the first 24 hours after application.
- After application, the fresh surface should be protected from rapid evaporation of water, as well as from rain for at least 24-48 hours.
- **HYDROFLEX COOL•ROOF** must not be exposed directly to chlorine water (e.g. swimming pools). It must be covered with tiles or other protective/decorative coatings.

TECHNICAL CHARACTERISTICS		
PRODUCT CHARACTERISTICS		COMPONENT A
Appearance		cementitious powder
Colour		white
Bulk density		1.40 ±0.05 kg/lit
Density		1.10 ±0.05 kg/lit
Dry solids content		100%
APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)		
Mixing ratio of components		A : B = 25 : 10 (parts by weight)
pH		> 11
Density		1.90 ±0.05 kg/lit
Pot life		about 1 hour (22°C)
Application temperature		minimum: +5°C / maximum: +35°C
Max. application thickness per layer		1mm
Consumption		approximately 1.2-1.4 kg/m ² for a 1 mm thick layer
PERFORMANCE CHARACTERISTICS		
Adhesion after thermal compatibility	freeze-thaw with de-icing salts (EN 13687-1)	≥ 1.0 N/mm ²
	thunder shower (thermal shock) (EN 13687-2)	≥ 1.0 N/mm ²
Static crack-bridging (EN 1062-7)	at +23°C	Class A5 (crack width > 2.50 mm)
	at -10°C	Class A4 (crack width > 1.25 mm)
Depth of penetration of water under pressure	under positive pressure (EN 12390-8, 3 days, 5 bar)	no penetration
	under negative pressure (1.5 bar)	no penetration
Adhesion to concrete (EN 1542, MC 0,40)		≥ 1.5 N/mm ²
Capillary absorption and permeability to water (EN 1062-3)		≤ 0.01 kg·m ⁻² ·h ^{-0.5}
Permeability to water vapour (EN ISO 7783)		S _D < 5 m (Class I)
Permeability to CO ₂ (EN 1062-6)		CO ₂ S _D > 50 m

Note: Measurements were conducted in a laboratory environment. The varying conditions present on-site (temperature, humidity, ventilation, substrate absorbency) may affect the material's properties.

SAFETY PRECAUTIONS

- The product (component A) contains cement which has an alkaline reaction with water and is classified as irritant.
- Always wear appropriate personal protective equipment for eyes and skin (protective clothing, gloves and goggles).
- If skin contact occurs, rinse well with plenty of clean water.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Refer to the product's Safety Data Sheet for further information on safe handling and precautions.
- **PRODUCT FOR PROFESSIONAL USE ONLY.**

PACKAGING - STORAGE

Available in:

- Package of 35 kg (25 kg A + 10 kg B) in white colour.

Storage: Component A: 12 months from production date, if stored in original, sealed packaging, protected from direct sunlight and moisture. ■ Component B: 12 months from production date, if stored in original, sealed container, protected from direct sunlight and frost.

LEGAL NOTICE

The technical characteristics and recommendations for the use and application of the **FINOMIX** range of products are based on the knowledge and experience of the company. The above information shall be considered merely indicative and subject to confirmation after long-term practical application. For this reason, anyone who intends to use the product must

ensure that it is suitable for the envisaged application. Since the specific site conditions during the applications are beyond the control of our company, the user alone is fully responsible for any consequences deriving from the use of the product. **FINOBETON S.A. (FINOMIX)** has the right to modify the properties of its products without prior notice. This release voids any previous publications issued for this technical specifications sheet.

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