

FC 1100

polymer-modified fiber-reinforced adhesive & reinforcing mortar for thermal insulation boards

- Bonding and reinforcing any type of thermal insulation boards
- High flexibility
- Excellent adhesion to the substrate
- Excellent workability
- Strong thixotropy, prevents vertical sliding of the thermal insulation boards during application
- Part of the certified ETIC systems:
Finoclima® MINERAL (ETA 15/0720),
Finoclima® MW (ETA 20/0174) &
Finoclima® EPS (ETA 20/0175)



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DESCRIPTION

Fiber-reinforced, polymer-modified cementitious mortar, for the installation and the surface-reinforcement of thermal insulation boards on buildings' facades.

It exhibits high bonding strength on the thermal insulation boards, excellent adhesion to the substrate, elasticity and resistance to moisture and frost.

Classified as general purpose (GP) cementitious mortar type CSIV, W2 according to the European standard EN 998-1. FC 1100 is part of the certified ETIC systems **Finoclima® MINERAL** (ETA 15/0720), **Finoclima® MW** (ETA 20/0174) and **Finoclima® EPS** (ETA 20/0175).

APPLICATIONS

Used in combination with the FC 1200 and FC 1300 renders for the external thermal insulation of building facades, forming the **Finoclima®** certified external thermal insulation composite systems.

It is ideal for the installation and reinforcement of thermal insulation boards of expanded or extruded polystyrene, mineral wool, etc., on the exterior facades of buildings.

Additionally, when reinforced with a suitable 160g/m² fiberglass mesh with a 4x4mm grid, it is applied on the exterior surface of the installed thermal insulation boards creating the ideal crack-free base-coat for the subsequent render layer.

FC 1100, reinforced with 160g/m² fiberglass mesh, can also be used as reinforcing layer on joints between dissimilar building materials (concrete-brick, concrete-AAC blocks, etc.) and electrical conduits in order to prevent future cracking, or for the overall anti-crack reinforcement of surfaces before the application of the final plaster coat.

PROPERTIES / ADVANTAGES

- High flexibility.
- High adhesion strength on the building materials.
- Strong bonding of any type of thermal insulation boards.
- Resistance to moisture, temperature changes and frost.
- Excellent thixotropic workability that prevents vertical sliding of the thermal insulation boards during installation.

- The product demonstrates low VOC emissions, verified through testing in an independent, accredited laboratory.

HARMONIZED STANDARDS / REGULATIONS

- EN 998-1: General purpose (GP) cementitious mortar, type CSIV, W2.
- ETAG 004: Part of the certified ETICS **Finoclima® MINERAL** (ETA 15/0720), **Finoclima® MW** (ETA 20/0174) and **Finoclima® EPS** (ETA 20/0175).
- Regulation (EC) No. 305/2011: CE marked product with Declaration of Performance (DoP): FC1100/CPR-7-13/060/10-2013.

APPLICATION INSTRUCTIONS

As adhesive mortar

- Before application surfaces must be clean, free of dust, grease, old renders, loose materials, etc.
- The substrate is recommended to be pre-wetted before application, while old painted surfaces, after being assessed for stability, must be primed with **FINO•CONTACT** acrylic adhesion promoting primer.
- The content of the bag is gradually added into the required amount of clean water under continuous stirring until a homogeneous, lump-free mixture with the desired workability is achieved. It is recommended to use a low speed electric mixer (300rpm).
- The mixture is allowed to settle for approximately 5 minutes and is then remixed lightly.
- The material is applied on the surface of the thermal insulation board using a 10mm notched trowel, ensuring an even distribution across the entire surface. On uneven substrates, the application is carried out by applying the material with a trowel along the perimeter of the thermal insulation board and selectively at 3-4 points in the center, depending on the board size. The thermal-insulation boards are then positioned and pressed into their desired place.

As reinforcing mortar

- The material is applied using a 10mm notched trowel, spreading it evenly over the entire surface of the thermal insulation board.
- While the layer is still fresh, the fiberglass mesh is applied, ensuring it is fully embedded into the mass of the material. The surface is then smoothed with a flat trowel and any excess material is removed.

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.
- Do not mix the product with dirty or salty water.
- Don't use excess water for mixing as it will affect the product's properties.

- Don't mix the product with cement, aggregates, or other additives.
- Do not add water once the mixture has begun to set.
- For very porous substrates (AAC blocks), the material must be applied only after the surface has been primed with the special **EQ•PRIMER**.
- For old painted surfaces, and only after their stability has been assessed, the material must be applied over a surface treated with the adhesion promoting primer **FINO•CONTACT**.
- Do not apply the product during rainfall or when frost is expected within the next 24 hours.

TECHNICAL CHARACTERISTICS

PRODUCT CHARACTERISTICS

Appearance	cementitious powder
Colour	white / grey
Bulk density	1.45 ±0.05 kg/l
Maximum aggregate size	0.8 mm (white) / 0.5 mm (grey)

APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)

Mixing ratio	26% b.w. (white) / 22% b.w. (grey)
pH	> 11
Density	1.70 ±0.05 kg/l
Pot life	~3 hours (23°C)
Application temperature	minimum: +5°C / maximum: +35°C
Consumption	As adhesive mortar: approximately 4-5 kg/m ² As reinforcing mortar: approximately 1.5 kg/m ² for a 1 mm thick layer

PERFORMANCE CHARACTERISTICS

Compressive strength (EN 1015-11)	14.00 N/mm ² (white) / 12.00 N/mm ² (grey)
Flexural strength (EN 1015-11)	6.00 N/mm ² (white) / 5.00 N/mm ² (grey)
Water-vapour diffusion coefficient, μ (EN 1015-19)	5/20
Thermal conductivity coefficient, $\lambda_{10, dry}$ (EN 1745)	0.45 W/mK (table A12 for P=50%)
Adhesion strength on concrete (28 days) (EN 1015-12 / method ETAG 004)	≥ 2.00 N/mm ² - Requirement ETAG 004: ≥ 0.25 N/mm ²
Adhesion strength on EPS (28 days) (without reinforcement) (method ETAG 004)	≥ 0.25 N/mm ² (EPS failure) - Requirement ETAG 004: ≥ 0.08 N/mm ²
Adhesion strength on MW (28 days) (with reinforcement 160g/m ²) (method ETAG 004)	≥ 0.09 N/mm ² (MW failure) - Requirement ETAG 004: ≥ 0.08 N/mm ²
Adhesion strength on XPS (28 days) (without reinforcement) (method ETAG 004)	≥ 0.30 N/mm ² - Requirement ETAG 004: ≥ 0.08 N/mm ²
Capillary water absorption (EN 1015-18)	≤ 0.10 kg/m ² ·min ^{0.5} (white) / ≤ 0.20 kg/m ² ·min ^{0.5} (grey)
In use temperature	from -30°C to +90°C

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 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.
- Consult product's Safety Data Sheet for further instructions on safety handling.
- **PRODUCT FOR PROFESSIONAL USE.**

PACKAGING - STORAGE

Available in:

- 25kg paper bags.

Storage: 12 months from production date, if stored in original, sealed packaging, protected from direct sunlight and moisture.

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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