



FINOMIX[®]
DRY MORTARS

Technical Data Sheet

Release 3: 09/04/2020

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)



FC 1100

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

DESCRIPTION

Polymer-modified, fiber-reinforced cement-based 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.

APPLICATIONS

Used in combination with the FC 1200 and FC 1300 renders for the external thermal insulation of the facades of the buildings, composing the **Finoclima**[®] certified external thermal insulation composite systems. It is suitable for the installation and reinforcement of thermal insulation boards from expanded or extruded polystyrene, mineral wool, etc., on facades of buildings. Additionally, reinforced with a suitable fiberglass mesh, it is applied on the exterior surface of the installed thermal insulation boards creating the ideal base-coat for the subsequent render layer.

Reinforced with 160g/m² fiberglass mesh, FC 1100 can also be applied as reinforcing layer on joints of dissimilar building materials (concrete-brick, concrete-AAC blocks, etc.) and electrical ducts in order to prevent future cracking, and even for the total anti-cracking reinforcement of the masonry (AAC blocks) before plastering works.

PROPERTIES / ADVANTAGES

- Industrially manufactured product with stable and controlled quality.
- 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.

HARMONIZED STANDARDS / REGULATIONS

- EN 998-1: General purpose cementitious mortar type GP CSIV, W2.
DoP no.: FC1100/CPR-7-13/060/10-2013.

- ETAG 004: Part of the certified ETIC Systems **Finoclima**[®] MINERAL (ETA 15/0720), **Finoclima**[®] MW (ETA 20/0174) and **Finoclima**[®] EPS (ETA 20/0175).

APPLICATION INSTRUCTIONS

As adhesive mortar

- Before application surfaces must be clean, free of dust, grease, old renders, loose materials, etc.
- The substrate must be dampened before application. Old painted surfaces must be evaluated for integrity and then afterwards to be primed with the acrylic adhesion promoting primer **FINO•CONTACT**.
- Add the bag content (25kg) gradually into the necessary clean water under constant stirring, until a homogenous mixture is formed having the desired consistency. It is recommended to use a low speed electric mixer (300rpm).
- Let the mixture to settle for 5-10 min and then stir again slightly.
- Apply uniformly on the surface of the thermal insulation board with a 10mm notched trowel. On rough substrates apply with a trowel on the perimeter of the thermal insulation board and on 3-4 spots in the middle depending on the size of the board.
- Install the thermal insulation boards by pressing them to the desired position.

As reinforcing mortar

- Apply the product with a 10mm notched trowel uniformly on the surface of the thermal insulation board.
- As long as the surface is still fresh, apply the fiberglass mesh and press it with a trowel in order to be fully embedded in the base-coat.
- Smoothen the surface with the trowel and remove the excess material.

CLEANING OF EQUIPMENT

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

RECOMMENDATIONS

- Don't use excess water for mixing as it will affect the performance of the product.
- Temperature during application should be between +5°C and +35°C.

- Don't mix the product with cement, aggregates or admixtures.
- Do not add water after the mix has started to set.
- Very porous surfaces (AAC blocks) must be first treated with suitable primer, e.g. FINO•CONTACT or EQ•PRIMER, before the application of FC 1100.
- Painted surfaces must be first evaluated for integrity and then treated with the adhesion promoting primer FINO•CONTACT.
- Do not apply the product under rain or if frost is expected within the next 24 hours.

TECHNICAL CHARACTERISTICS	
PRODUCT CHARACTERISTICS	
Appearance	powder
Colour	white / grey
Maximum grain size	0.8mm (white) / 0.5mm (grey)
Bulk density	1.45 ±0.05 kg/lt
APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)	
Mixing ratio	26% (white) / 22% (grey)
pH	> 11
Density	1.70 ±0,05 kg/lt
Pot life	~3 hours (23°C)
Application temperature	minimum: +5°C / maximum: +35°C
Consumption	As adhesive mortar: about 4-5 kg/m ² As reinforcing mortar: about 1.5 kg/m ² for a 1mm 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, λ _{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 service temperature	from -30°C to +90°C

Note: Measures were carried out in laboratory environment conditions (+23°C, 50% R.H.) with no ventilation. The different conditions on site (temperature, humidity, ventilation, substrate absorption) may affect the properties of the material.

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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