

LENA ETICS 824

FIBER-REINFORCED MORTAR FOR BONDING AND BASECOAT OF INSULATION BOARDS

1. PRODUCT DESCRIPTION

LENA ETICS 824 is a pre-bagged dry mortar composed of mixed binders, limestone and silica aggregates, additives, and reinforced with special fibres for application on the outside of ETICS – External Thermal Insulation Composite Systems, both in new constructions and rehabilitations.

LENA ETICS 824 is supplied in 25 kg bags and packed in plastic pallets of 60 bags. Provided that it is kept in its original packaging, the product has a shelf life of 12 months under storage conditions in which it is protected from high temperatures and humidity.



2. FIELD OF USE

LENA ETICS 824 is suitable for fixing and coating expanded (EPS) and extruded (XPS) polystyrene without film, rock wool or agglomerated cork boards in ETICS systems. It is used on cement-based surfaces (concrete, plaster) and masonry walls.

When used on non-absorbent surfaces (tiles or paint), bonding mortar **LENA ETICS 824 Plus** must be applied.

3. PRODUCT DESCRIPTION

ADHESIVE POWDER	Average values*	Reference Standard
Appearance	White and grey powder	-
Density	1200-1400 kg/m ³	-
Granulometry	Fine (< 0.6 mm)	-

ADHESIVE PASTE	Average values*	Reference Standard
Application temperatures	+5°C to 30°C	-
Mixing water	20%	-
Guideline usage		
Fixing and coating	8 – 10 kg / m ²	-

HARDENED ADHESIVE	Average values*	Reference Standard
Volume	1150-1350 Kg/m ³	EN 1015-10
Compressive strength	≥ 7.0 N/mm ²	EN 1015-11
Capillarity	≤ 0.1 kg/(m ² .min ^{0.5})	EN 1015-11
Water vapour permeability (μ)	< 15	EN 1015-19
Adhesion to concrete	≥ 1.0 N/mm ²	EN 1015-12
Reaction to fire	Class F	EN 998-1
Thermal conductivity	0.36 W/m.K (P=90%) 0.33 W/m.K (P=50%)	EN 1745

* Results obtained in tests carried out under standard conditions; real usage may vary depending on the conditions of use.

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4. APPLICATION RECOMMENDATIONS

- **Preparing surfaces:**

Surfaces must be free of dust, release agents and disintegrating or unstable materials, efflorescence, and any other materials that may impair the adhesion of the mortar.

In any case, and in the case of rehabilitation operations on old surfaces, you are advised to consult our Technical Services prior to using the product.

- **When starting work:**

Once all elements of the facade that need replacing are removed and surfaces are prepared, start mounting the system starter profiles. The parts for application are laid horizontally on the edges of the area to which the mortar will be applied using screws suitable for use on the surface, secured less than 5 cm from the ends. Leave a grout joint of 2 to 3 mm between parts so as to allow for their expansion.

- **Preparing the mortar:**

Mix **LENA ETICS 824** with 5 litres of water per 25 kg bag, using an electric mixer on low speed until it forms a smooth, consistent paste with no lumps.

- **Fixing insulation boards:**

The mortar should be applied over the entire surface of the part to be fixed (continuous bonding), with a 6-10 mm u-notched trowel. A strip about 2 cm wide should be left around the edges of the part, therefore preventing the glue from filling the grout joints between the boards.

The insulation boards are laid immediately following application of the adhesive, one after the other, in horizontal rows starting from the base of the wall and arranged with mismatched joints, either between them or around the edges. To ensure effective bonding, press the boards against the base surface with the aid of a wooden trowel.

LENA ETICS 824 should not be used to fill gaps between or even out irregularities between boards. Insulating material must be used to fill these spaces and/or the area should be smoothed with a sanding trowel for corrective actions. These actions should always be taken after the glue has completely dried.

Once the glue has dried, proceed with reinforcing specific points such as the edges, sills, and grout joints using the appropriate tools to do so.

- **Application of reinforced coating:**

Reinforced coating should be applied shortly after the adhesive has dried to avoid deterioration of the thermal insulation surface. Apply the product in layers at least 2 mm thick using a stainless-steel trowel and then apply the anti-alkaline treated fibreglass mesh – **LENA ETICS Rede 160 gr/m²** mesh on the layer while it is still fresh. The edges of the mesh should have an overlap of 10 cm. Never apply the mesh directly to insulation boards.

Once the first layer of **LENA ETICS 824** has dried (1 day), apply a second layer of the mortar so as to completely cover the mesh.

On ground floors, reinforce with two layers of reinforced coating, always employing the classic "sandwich" effect.

- **Application of the finish coat:**

Once the **LENA ETICS 824**, mortar has dried, proceed with applying the paint primer – **LENA ETICS 825-P** followed by acrylic coating – **LENA ETICS 825**, which provides a rough finish. A thin coating of coloured plastering mortar – **LENA ETICS 823**– can be used as an alternative, which provides a sand finish. To strengthen the surface's resistance to moisture penetration, apply surface water repellent **LENA 875** to the mortar.

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5. FURTHER ADVICE

- In dry weather or strong exposure to winds, areas should be protected by shading or moistening.
- Water mixed with the mortar should not contain any impurities (clay, organic matter), and should preferably be drinking water;
- Do not apply product that has started to set, or softened mortars;
- Do not add any other products to the mortar, and apply the product as presented in its original packaging and prepared according to recommendations;
- For highly developed panels, especially those facing a south-westerly direction, the size of expansion joints should be determined according to the physical characteristics of the mortar used.

6. HEALTH AND SAFETY

Product Safety Data Sheet available for consultation at www.argatecnic.pt or upon request from our Sales Services.

7. WARRANTY AND TECHNICAL ASSISTANCE

For technical assistance and sales information, contact:

LENARGATECNIC, LDA.


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Tel: (+351) 244 723 720

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8. CE MARKING

 YEAR: 07	LENA ETICS 824 EN 998-1 General purpose mortar (GP) for fixing and coating ETICS systems Performance declaration PDO no. 824.001 (grey) and PDO no. 824.002 (white)
LENARGATECNIC, LDA Rua dos Castanheiros, nº 11 Boa Vista 2420-415 LEIRIA, Portugal	

The information, recommendations and technical characteristics presented in this Technical Data Sheet are provided in good faith and are based on the current knowledge we have of the product. These may be altered without prior notice. Our responsibility is limited to guaranteeing the quality of the product provided according to the physical-chemical characterisation presented in this Technical Data Sheet. We cannot make any guarantees concerning its correct application, even if inferred from these instructions or contained within oral or written recommendations.



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