

Cement-based render CE marked according to UNI EN 998-1 standard, for fixing and coating ETICS insulation panels.



Mod.51 Rev 64  
Last update 20/10/2021



## CHARACTERISTICS

One-pack cement mortar in powder, polymer-modified, with siliceous aggregates and special additives for fixing and coating ETICS (Exterior Thermal Insulation Composite Systems).

**INTOCEM ETICS** has good workability, excellent adhesion to the substrate and mechanical resistance. It is weatherproof and has good flexural strength, it does not shrink and bonds well with the substrate, provided the latter has a sufficient degree of porosity and absorbency. Thanks to its composition, **INTOCEM ETICS** is easy-to-apply and has good vapour permeability. **INTOCEM ETICS** is CE-marked according to UNI EN 998-1 standard (Rendering and plastering mortars). The render can be applied both on vertical and horizontal surfaces with maximum thickness of 3 mm per coat, for a total maximum thickness of 5 mm.

## USE

Fixing of thermal insulation panels in ETICS. Reinforcing coat for embedding fiberglass mesh on walls and thermal insulation systems.

## SURFACE PREPARATION

### OLD SURFACES

#### 1) Plasterwork

Remove loose and flaking elements and repair with cement mortar where necessary. In case of particularly fragile or chalky plasterwork, consolidate it with **PRIMER A**.

#### 2) Walls with old paint and coatings

Remove old paint and coatings that are not well adherent to the substrate by manual or mechanical scraping, or by using a paint remover. Fill any cracks. Use a pressure washer to thoroughly clean the surface, both in the case that the old coating has been completely removed or if application will be on the old coating. In the last case, make sure that the substrate is solid. Apply 1 coat of **RESINPOL** to consolidate the surface and improve adhesion.

### NEW SURFACES

Make sure that the surface is dry, free from dust, widespread irregularities and that the substrate has properly cured and is sufficiently solid. The substrate must be clean and free from release agents, oils, dirt, efflorescence, humidity, etc. In case of application over porous substrates (concrete, cement plaster, etc.) moisten the surface with water to saturation but avoiding water stagnation, which can be eventually removed by compressed air or liquid vacuum pump. **INTOCEM ETICS** must be applied with a maximum thickness of 3 mm per coat. Make sure to leave a sufficiently rough surface if you need to apply a second coat of **INTOCEM ETICS**. Smooth the final coat with sponge trowel or metal trowel until a smooth surface is achieved.

## APPLICATION

**Fixing of panels:** pour 5 litres of water for every 25 kg of product in a container or concrete mixer, add **INTOCEM ETICS** and mix with low rotation speed (200-300 rpm). Keep on mixing for at least 5 minutes or until a homogeneous, lump-free paste is obtained. Let it rest for 5 minutes before applying. Apply **INTOCEM ETICS** along the full perimeter of the panel and in 3 central spots in order to guarantee perfect adhesion of the panel and, at the same time, leave some empty spaces inside the panel, in order to avoid the suction effect during the application and create an air chamber between panel and wall. Install the panels immediately after application of **INTOCEM PLUS**, starting from the base profiles and proceeding from the bottom upwards in a staggered pattern. Use a rubber hammer to ensure grip. Avoid difference in thickness greater than 3 mm and open joints over 2 mm. Close any open joints with insulation material.

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**Rendering:** pour 5 litres of water in a container or concrete mixer add **INTOCEM ETICS** and mix with low rotation speed (200-300 rpm). Keep on mixing for at least 5 minutes or until a uniform paste, free from lumps is obtained. Let it rest for 5 minutes before applying. Apply with a steel float to obtain a sufficiently even surface. For a totally smooth surface, rub with a slightly damp sponge float before product starts to set.

**Reinforcing coat:** place a 155 g/m<sup>2</sup> fiberglass mesh on the fresh mortar and embed it with the help of a steel float. Each piece of mesh should overlap the subsequent one by at least 10 cm. Avoid bloats and bending during the application. Wash the tools with water immediately after use. **INTOCEM ETICS** can be overcoated about 4 - 5 days after application in normal conditions. Environmental conditions can strongly affect drying.

## IMPORTANT NOTES:

- For professional use only.
- Carefully read safety data sheet before use.
- Use full content once the bag is opened.
- Before application, make sure that the surface is perfectly dry and hardened, and that it has good adherence to the substrate. Surface must be clean and free from oil, grease, mould, fungus, bacteria, efflorescence or any other defect that could impair adherence or successful results.
- Wait about 4 - 5 days after application of INTOCEM ETICS before applying the final coat and in any case make sure that the substrate is perfectly dry and cured.
- Use product at a temperature of the work environment and treated surface between 5°C and 35°C. Relative humidity must not exceed 75%
- Do not allow drying to take place with temperature of the work environment and treated surface below 5°C.
- Do not apply product if rain is likely or in the presence of strong sunlight, strong winds or persistent fog.
- Protect treated surfaces from rain for the time required to allow product to fully harden.
- Do not mix again the product or add water once it starts to set.
- In case of application on new plaster, wait at least 3 weeks before applying the product.
- Scaffolding should be erected in a way that allows work to be continued uninterrupted until a natural boundary of the building is reached, to avoid seams and overlaps.
- Immediately wash the tools with water after use.
- Due to its high alkaline content, the product irritates the skin and eyes. Consequently, avoid contact.
- Given the many different factors that may affect the successful outcome of treatment, in any case of doubt contact our Technical Service.

## TECHNICAL DATA

<b>Appearance</b>	Grey powder
<b>Maximum aggregate size</b>	0.7 mm
<b>Package</b>	25 kg bag
<b>Water for mixture</b>	19-21% (4.75 – 5.25l per 25 Kg)
<b>Powder density</b>	1400 ± 100 kg/m <sup>3</sup>
<b>Mixture density</b>	1800 ± 200 kg/m <sup>3</sup>
<b>Consumption rate</b>	1.5 - 1.6 kg/m <sup>2</sup> per mm applied 5-6 kg/m <sup>2</sup> for fixing insulation panels
<b>Maximum thickness</b>	3 mm per coat
<b>pH of the mixture</b>	12 ± 0.5
<b>Mixture open-time</b>	70 ± 5 minutes
<b>Flexural strength at 28 days UNI EN 1015-11</b>	>4 N/mm <sup>2</sup>
<b>Compressive strength at 28 days UNI EN 1015-11</b>	>20 N/mm <sup>2</sup>
<b>Tensile adhesion on expanded polystyrene</b>	>0.2 N/mm <sup>2</sup>

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<b>Tensile adhesion to concrete</b>	>1 N/mm <sup>2</sup>
<b>Water absorption by capillarity UNI EN 1015-18</b>	<0.2 kg/(m <sup>2</sup> min <sup>0.5</sup> )
<b>Water vapour permeability UNI EN 1019-19</b>	$\mu \leq 25$ sd=0.045 (thickness 3mm)
<b>Hazardous content</b>	Compliant with Italian DM10/05/2004
<b>Storage</b>	Protect from humidity. Store the product in a sheltered and dry place. In these conditions and in sealed original bag, it can be stored for 12 months.

CHARACTERISTICS	EN 998-1 LIMIT VALUE	VALUE
Compressive strenght UNI EN 1015-11 [MPa]	CS I (da 0,4 a 2,5) CS II (da 1,5 a 5,0) CS III (da 3,5 a 7,5) CS IV ( $\geq 6$ )	CS IV
Reaction to fire EN 13501-1	Class declared by manufacturer	A1
Adhesive strength EN 1015-12 [MPa]	Declared value and failure process (FP)	>1 (B)
Water absorption by capillarity EN 1015-18	From WO to W2	W2
Water vapour permeability ( $\mu$ ) EN 1015-19	$\leq$ Declared value	$\leq 25$
Thermal conductivity EN 1745 [W/m K]	Tabulated value	0.68
Durability	Declared value	NPD
Hazardous content	Declare value	See SDS

The above information has been obtained from scrupulously controlled tests, and represents our best and most recent knowledge. This information is provided for reference purposes only. It is not binding upon the manufacturer, and neither may it constitute grounds for any kind of complaint whatsoever associated with the use of the products described, also considering that the conditions of use are beyond our control.

Please refer to the relevant Safety Data Sheet