

# THERMABOND PLUS

## Fiber-reinforced, Polymer-modified, Cementitious Adhesive & Base-Coat Mortar for Thermal Insulation Boards

### Description

**THERMABOND PLUS** is a fiber-reinforced, polymer-modified, cementitious adhesive & base coat mortar for thermal insulation boards.

It consists of high-quality white cement, limestone aggregates of graded granulometry, improving resins, fibers and special additives that ensure high adhesion to all common substrates and thermal insulation boards, high mechanical strengths and flexibility. Does not contain lime in its composition. The addition of water is required.

It is classified as type **GP CS IV, W<sub>c</sub>2** mortar according to **EN 998-1** and meets the requirements of the guidelines for external thermal insulation systems of buildings.

### Field of Application

**THERMABOND PLUS** can be used as adhesive mortar for all thermal insulation boards: expanded polystyrene (EPS), white or graphite, extruded polystyrene (XPS), mineral wool (MW), in external thermal insulation systems, on walls & ceilings.

In addition, it can be used as a base coat mortar of thermal insulation boards, reinforced with anti-alkali fiberglass mesh, being an ideal substrate for the finishing renders that will follow.

Also, it can be used as a base coat, reinforced with anti-alkali fiberglass mesh, in technical solutions of anti-cracking protection systems for wall or ceiling surfaces.

Suitable for indoor & outdoor usage.

## Technical Data

### Technical Characteristics

Appearance	Cementitious powder
Colour	White/Grey
Maximum grain size	1,4mm
Apparent density of dry mortar	1,45±0,05kg/l

### Application Properties@ 23oC / 50% RH

Mixing ratio	6-7 lt water per 25kg	
Apparent density of dry mortar of fresh mortar	1,85±0,05kg/l	EN 1015-6
Application temperature	5°C-35°C	
Workable time	>90min @ 20°C	
Application thickness per layer	5 – 20mm	
Consumption as adhesive mortar	4 – 6 Kg/m <sup>2</sup>	
Consumption as base coat	1,4 – 1,5 Kg/m <sup>2</sup> /mm	

### Performance

Compressive strength	≥10N/mm <sup>2</sup>	EN 1015-11
Flexural strength	≥4,5N/mm <sup>2</sup>	EN 1015-11
Adhesion to concrete	≥1,2N/mm <sup>2</sup> FP:B	EN 1015-12
Adhesion to EPS	≥0,2N/mm <sup>2</sup>	EN 13494
Capillary water absorption	≤0,2kg/m <sup>2</sup> .min <sup>0,5</sup>	EN 1015-18
Water vapour permeability coefficient, μ	≤20	EN 1015-19
Thermal conductivity (λ10, dry)	0,45W/mK	EN 1745
Reaction to fire	Class A1	EN 13501-1

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### Directions for Use

**1. SUBSTRATE – PREPARATION:** The application substrate should be clean, solid, free of loose parts, dust, oil, tar, lime, etc. On absorbent substrates, light soaking the surface with water, before application,

In cases of very absorbent substrates (e.g. porous concrete, old plasters/renders, etc.) it is recommended to precede the priming with a micromolecular, water-based, impregnation, acrylic primer, diluted appropriately so that it penetrates the surface, avoiding film formation on the substrate.

**2. MIXING:** In a clean container with pure water, gradually add the package content, under constant stirring with a low-speed electric mixer (**6-7 lt water per 25Kg THERMABOND PLUS**). Mix carefully until the mixture becomes homogeneous, without lumps and taking care not to leave any amount of package content on the walls or bottom of the container. Let the mixture stand for 5 minutes and then stir again. The mixture is ready to use for the next 90 minutes at 20°C.

### 3. APPLICATION:

#### Application as a thermal insulation board adhesive on flat surfaces:

Apply **THERMABOND PLUS** universally to the surface of the thermal insulation boards using a smooth metal spatula, then comb the material evenly with a notched metal spatula. Place the thermal insulation boards in the desired position, by pressing sufficiently.

#### Application as an adhesive for thermal insulation boards on uneven surfaces:

Apply **THERMABOND PLUS** in a strip around the perimeter of the thermal insulation board as well as in 2-3 center points, using a trowel or metal spatula. The adhesive should cover at least 40% of the surface of the thermal insulation board. Place the boards in the desired position, by pressing sufficiently.

In any case, the finished boards' surface must be completely flat and leveled, without any excess mortar from insulation boards' joints. Make sure that there is no "skin" formation on the adhesive surface, before board application, otherwise remove and refresh the adhesive layer. The final adhesive thickness must not exceed 15mm, after the board has been installed.

#### Application as a base coat on thermal insulation boards (or crack protection systems):

Apply **THERMABOND PLUS** universally over the entire surface of the thermal insulation boards using a metal trowel and while it is still wet, reinforce with anti-alkali fiberglass. Apply another thin layer of mortar to the surface, after the previous one has dried sufficiently. In any case, the total thickness of the layers varies between 2-3mm. The mesh must be placed in the upper 1/3 of the layers' thickness and must be overlap at least 10cm in the joint area. After each layer, the surface can be smoothed, if needed, by lightly rubbing with suitable sandpaper.

### 4. CLEANING OF TOOLS:

Remove as much product as possible from tools while still fresh and clean using water. When the material hardens it is removed by mechanical means.

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## Packaging - Colors

Available in 25Kg paper bag package (pallet of 60 bags), in grey and white color.

## Storage

For 12 months from the date of production, in sealed, original packaging, at a cool, dry and well-ventilated place.

## Important Notes

Do not apply at substrate & environment temperatures below +5°C and above +35°C.

Do not apply in case of impending rain for at least the next 24 hours after application.

It is recommended to protect the surfaces from strong air currents & direct, intense solar radiation using protective covers.

Do not add additional water and/or cement, gypsum, lime, or other materials that may affect the properties of the mortar.

## Additional Notes

**INTERMIX** bagged products help keep the environment clean.

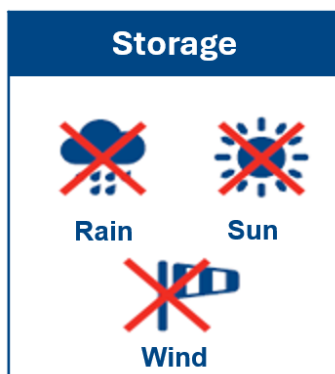
- They reduce waste and material losses
- They reduce environmental pollution.
- Their packaging is fully recyclable.

## Consumption

As thermal insulation boards adhesive: 4-6 Kg/m<sup>2</sup>

As render repairing mortar: 1,4 – 1,5 Kg/m<sup>2</sup>/mm.

It depends on the type of substrate, the method, the tools and the application conditions.



<b>CE</b>	
TITAN CEMENT SA 22A Halkidos Str., 111 43, Athens, Greece	
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EN 998-1:2016	
DoP No: INTERMIX 36	
General purpose rendering and plastering mortar for external and Internal use (GP/CS IV)	
Reaction to fire:	Euroclass A1
Capillary water absorption:	W <sub>2</sub>
Water vapour permeability coefficient (μ):	μ ≤ 15
Thermal conductivity (λ <sub>10, dry</sub> ):	0,61 W/mK
Adhesion:	≥ 0,6 N/mm <sup>2</sup> FP: B