

## TECHNICAL DATA SHEET

### BONDEX

#### DESCRIPTION

BONDEX is a cement-based product in powder form, designed for bonding and leveling thermal insulation boards on façades, plinths, and thermal insulation systems. When mixed with water, it forms a homogeneous, paste-like, lump-free mixture with high thixotropy and stability in vertical applications. The product creates a strong bond with thermal insulation boards and stable substrates, enabling a compact, reinforced leveling layer suitable for subsequent decorative coatings.

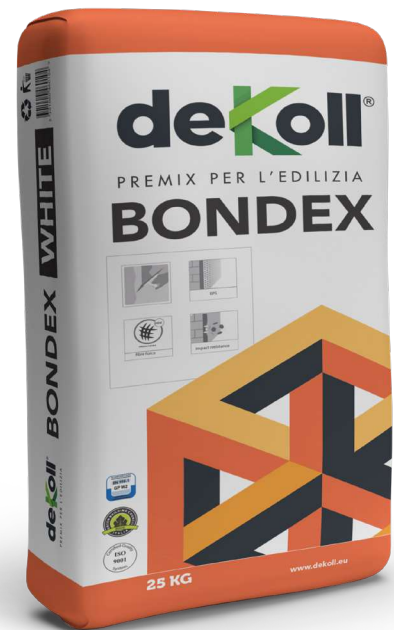
The product is formulated to provide very good workability, high adhesion to thermal insulation boards, a fine layer structure, moisture resistance, and stability during application. These characteristics also make it suitable for the repair, leveling, and reinforcement of all other cement-based substrates or gypsum boards, cement boards, as well as for the correction of both old and new substrates.

#### CHARACTERISTICS

1. Bonding and leveling of EPS, XPS and rock wool thermal insulation boards.
2. Fiber-reinforced, with high resistance to moisture.
3. Good workability and stability in vertical applications.
4. Suitable for façades, plinths and ETICS thermal insulation systems.
5. Reaction to fire: Class A1.
6. Maximum adhesion and strong bonding to thermal insulation boards and stable mineral substrates.
7. Fine granulometry for a closed and compact surface and texture.
8. High thixotropy: allows vertical application without material sagging and helps prevent thermal insulation boards from slipping during installation.
9. High bonding performance with the main construction substrates such as traditional plasters, leveling layers, brick walls, concrete and stable existing coatings.
10. Controlled hardening without significant shrinkage when the product is prepared and applied under normal working conditions.
11. Suitable for simple or reinforced leveling layers in interior and exterior applications on mineral substrates.
12. Enables the creation of a homogeneous reinforced layer with alkali-resistant fiberglass mesh.

#### FIELD OF APPLICATION

Bonding and leveling of thermal insulation boards in external thermal insulation systems (ETICS). Bonding and leveling of EPS, XPS, PIR, phenolic foam, mineral wool/rock wool, cork, aerogel and other thermal insulation panels suitable for bonding with cement-based products. Application on walls and ceilings, over plaster, masonry, concrete and stable mineral substrates. Application on brick walls, thermal bricks, mixed masonry walls, stone walls, concrete, new plasters and well-bonded old plasters. Application over stable existing layers, including traditional plasters/leveling layers and well-bonded old coatings, after cleaning and technical verification of adhesion. Simple or fiber-glass mesh-reinforced leveling for interior and exterior applications on mineral substrates. Leveling layer over thermal insulation boards, creating a homogeneous surface for final decorative coatings. Reinforced leveling over cement-based/fiber-cement panels, including panels used as cladding in ventilated façades, when the system is suitable for this application. Reinforcement of all types of mineral substrates for subsequent decorative coatings. Use on façades, plinths, joint areas, corners and details where a compact, closed and reinforced layer is required.



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#### RECOMMENDATIONS

Do not apply on metal, PVC or other non-absorbent/non-mineral surfaces without a tested system and a suitable primer.

Do not apply in areas with continuous moisture or on unstable substrates.

Do not apply on substrates characterized by continuous vibrations, deformation or significant movement.

Do not use on days with strong wind, rain, frost or intense direct exposure to sunlight.

At high temperatures, it is recommended to protect the façade with suitable mesh/covering.

Do not apply on thermal insulation boards with very smooth surfaces, film, kraft paper or coatings that prevent adhesion, without prior treatment or verification.

Do not bond boards over degraded, cracked, detached or unstable old plasters, paints or coatings.

Do not apply over dehumidifying plasters or special systems without technical confirmation of suitability.

During periods of high temperatures, wind or strong solar radiation, protect the façade with scaffolding and shading mesh.

In case of rain, high humidity or low temperatures, drying and curing times may be extended.

#### SUBSTRATE PREPARATION

The substrate must be clean and free from dust, oils or residues that may prevent bonding between the layers. The substrate may be cleaned mechanically or manually. For unstable substrates, the installation of fixing anchors is necessary. The workability time of the mixture is 2–3 hours under normal temperature conditions (20°C).

#### APPLICATION

For bonding:

Mix 6–6.5 liters of water with Bondex in a clean container using an electric mixer until a homogeneous and lump-free mixture is obtained.

Method I:

Apply the product with a trowel onto the insulation board at a thickness of 30 mm, covering approximately 45% of the board with adhesive using the dot-and-strip method.

Method II:

Apply the product with a notched trowel both on the thermal insulation panel and on the substrate in a crosswise manner. This type of application requires the substrate not to have significant level differences. Before leveling the surface with adhesive, install the fixing anchors according to the installed board, 5–6 anchors/m<sup>2</sup>.

For leveling:

Apply the product with a trowel onto the insulation board at a thickness of 5 mm. While still fresh, apply the reinforcing mesh so that it becomes embedded in the adhesive. At corners or joint areas around doors or windows, it is necessary to apply the reinforcing mesh twice. The optimal application temperatures are from +5°C to +35°C. For subsequent coatings, it is important that the substrate has reached sufficient drying maturity, approximately 5–7 days, depending on atmospheric conditions.

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#### TECHNICAL DATA

|                                                          |                                       |
|----------------------------------------------------------|---------------------------------------|
| Appearance:                                              | Powder                                |
| Packaging:                                               | 25 kg paper bags on 1350 kg pallets   |
| Consumption for leveling:                                | 2-3 kg/m <sup>2</sup>                 |
| Consumption for bonding:                                 | 4-5 kg/m <sup>2</sup>                 |
| Color:                                                   | White / Grey                          |
| Storage:                                                 | Store in dry places on wooden pallets |
| Shelf life:                                              | 12 months from the date of production |
| Bulk density:                                            | 1.65 – 1.75 gr/cm <sup>3</sup>        |
| Mixing water:                                            | 6–6.5 liters of water per 25 kg       |
| Mixture pH:                                              | >12                                   |
| Application temperature:                                 | +5°C to +35°C.                        |
| Waiting time before painting:                            | 7 days                                |
| Grain size:                                              | 0.7 mm                                |
| Thermal conductivity coefficient ( $\lambda_{10,dry}$ ): | 0,52 W/Mk                             |
| Adhesion strength to concrete after 28 days:             | 1.7 N/mm <sup>2</sup>                 |
| Compressive strength:                                    | 16.1 N/mm <sup>2</sup>                |
| Adhesion strength to EPS:                                | 144 kPa                               |
| Water absorption:                                        | W2                                    |
| Reaction to fire:                                        | Class A1                              |