



BIS BOND FLEX 200

Mortar for bonding and rendering
thermal-insulation boards



V02, 11.2021

Packaging: 25Kg

Description

BIS BOND FLEX 200 is a fiber-reinforced thixotropic, cement-based mortar enriched with synthetic resins and special additives. It is suitable for bonding and combined with the alkali-resistant mesh BIS FORTE 160 gr for rendering all types of thermal-insulating panels in External Thermal Insulation Composite Systems (ETICS). It is suitable for all common substrates in constructions.

Certifications

CE marking and Declaration of Performance (DoP) 13/212200/102021 as general-purpose rendering/plastering mortar for internal and external use according EN 998-1.

Typical applications

BIS BOND FLEX 200 is suitable for bonding thermal insulating boards such as:

- Expanded and extruded polystyrene
- Expanded polyurethane
- Mineral fiber boards, rock wool

For levelling and rendering thermal insulating boards prior to the application of:

- Organic & inorganic plasters
- TOP DÉCOR, GRAFFIATO, GESSO decorative coatings

For application in various substrates such as:

- Concrete, cement screeds, brick walls
- Renders and wall brick mortars
- Cement and gypsum boards (properly primed)

Technical Data

Product Identification

Consistency	Powder
Color	White
Chemical base	Portland cement, aggregates, special additives
Granulometry	Dmax 0,6 mm
Powder density	1,4 ± 0,1 kg/L

Application Data (+23°C % & 50% R.H.)

Mixing ratio	6,0-6,5 L water per 25kg
Density of the mix	1,50 ± 0,05 kg/L
Pot life	4 hours
Application temperature	from +5°C up to +35°C

Final Performances according to EN 998-1:2016

Compressive strength	≥ 10 N/mm ²
Flexural strength	≥ 1,0 N/mm ²
Adhesion	≥ 1,0 N/mm ²
Water capillary absorption	≤ 0,20 kg/m ² · min ^{0,5}
Water vapor diffusion coefficient (μ)	15
Thermal conductivity coefficient (λ10,dry,mat)	0,45 W/mk

Application Procedure

Substrate Preparation

Cement based substrates must be compact, without cracks, free of dust, salts, grease and any other materials that could reduce adhesion of BIS BOND FLEX 200 to them. Concrete substrates should be mechanically prepared, for example, by grinding to achieve a uniform surface of open porosity without protruding edges. For gypsum-based substrates, it is necessary to prime the substrate with AQUAFIX primer prior to the rendering of the insulating boards. Nonabsorbent substrates are recommended to be primed with QUARTZ TILES. In case the application is done upon absorbent substrates such as concrete, cement screeds etc. properly saturate the substrate with water, avoiding the presence of standing water. For additional information, refer to the corresponding Technical Data Sheets of the products.

Preparation of the mix

Mix the contents of a BIS BOND FLEX 200 (25 kg) bag with 6,0 – 7,0 liters of clean water by means of an electric stirrer at low speed (500 rpm) for at least 3 - 5 minutes. Mixing should be done until a uniform mix free of lumps is obtained. The product is ready for use. The mixture has a pot life of approximately 4 hours. During hot weather it is advised not to expose the materials before their use in the sun (powder and mixing water) otherwise the open time of the mixture is reduced. In any case, avoid mixing by hand.

Application

On flat substrates apply BIS BOND FLEX 200 as adhesive mortar directly onto the back of the thermal insulation board with a trowel. With a toothed trowel spread evenly the adhesive so that the back side of the board is totally covered with mortar, throughout the surface. On uneven substrates, apply the mortar by using a trowel pointing to the center and the perimeter of the thermal insulating board. By applying firm pressure, place the thermal insulating board in the correct position. When BIS BOND FLEX 200 is applied as a levelling coating, spread the mortar over the entire surface with a toothed trowel and in the fresh layer incorporate the alkali-resistant mesh BIS FORTE 160 gr. Ensure an overlapping of $\geq 10\text{cm}$ between the rolls of the mesh. Integration of the BIS FORTE 160 gr must be performed as long as the mix is still fresh with the flat side of the trowel.

Recommendations

- Do not apply when ambient temperature is less than $+5^{\circ}\text{C}$ or higher than $+35^{\circ}\text{C}$
- Do not exceed 10 mm of thickness in one single layer
- Do not apply upon metallic, wood or deformable surfaces
- Do not apply upon surfaces such as polyurethane coatings, paints, acrylics and substrates subjected to big movements
Do not apply upon PVC and bitumen membranes and in general materials which polymerize in the long run
- Do not apply upon loose substrates or substrates not properly cured
- Do not apply upon non-absorbent substrates not properly primed
- Do not apply upon existing expansion or movement joints of the substrate
- Do not apply the mixture under direct sunlight exposure and/or strong winds
- Do not exceed the recommended quantity of mixing water
- Protect the application surface from rain or frost the first 24 hours
- Do not add cement, gypsum, lime or other materials that might affect the properties of the mortar
- The application must be performed by a professional installer

Consumption

For bonding thermal insulation boards

Spot bonding: $2\text{-}4\text{ kg/m}^2$

Applied evenly covering the back of the insulation board: $4\text{-}6\text{ kg/m}^2$

For smoothing and covering of the thermal insulation boards

$1,4\text{ kg/m}^2$ per mm of thickness, recommended total thickness 4 mm in two layers and by incorporating BIS FORTE 160 gr

Storage

BIS BOND FLEX 200 remains stable for 12 months from the production date in the original sealed packaging stored in dry place and temperature between $+5^{\circ}\text{C}$ και $+35^{\circ}\text{C}$.

Packaging

Paper bags of 25 kg and pallets of 1250 kg

Safety Instructions

For information and instructions regarding disposal and safe handling, users should refer to the latest Safety Data Sheet of the product containing ecological, toxicological and other safety related data.

Legal Notes

The technical data and recommendations contained or listed in this leaflet are the result of laboratory measurements, of our current knowledge and experience. All the above-mentioned information and specifications should in any case be considered as indicative, as they may differ from each other. The Company makes every effort to ensure the accuracy of the information provided herein. Product specifications, prices and availability are subject to change without notice and may differ from those shown. In practice, variations in materials, substrates and on-site implementation conditions are such that no warranty can be given or implied as to the merchantability or suitability of the materials for a particular purpose and for the exact conditions of each project. Anyone interested of using the product must be sure beforehand that the product is suitable for the intended use and in any case, the user is solely responsible for any consequences due to the use of the product. Among other things, the Company is not responsible for any normal wear or tear from environmental or other inappropriate conditions. We reserve the right to revise or change the data herein without prior notice. Restrictions and disclaimers apply to the extent permitted by applicable law. The Company has a Technical Support Department, which is the only one responsible for providing technical advice and solutions to deal with problems. Requests to the Technical Support Department are addressed and answered, only in writing. For the latest and valid version of the Technical Data Sheet, the user of the material must refer to our website www.berling.gr.

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