

## 1. Description

BLUCLAD PROBOARD is a high-performance fibre cement board for external applications. The board is manufactured using the Hatscheck technology, then autoclaved, sanded and rectified. The board is available with square edges only.

## 2. Colour



BLUCLAD PROBOARD is coloured beige and exhibits on its surface shiny particles of mica crystals visible on both sides. Stains in the surface, for instance brown or white spots peculiar to the autoclave process, are occasionally possible and are inherent to the production

The board is labelled on its front side. When installed on a frame, the marking shall be visible.

## 3. Product Composition

BLUCLAD PROBOARD is made of Portland cement, selected mineral fillers including mica (providing extra high dimensional stability and low hydric movement), organic reinforcing fibres and functional additives. The boards have received a hydrophobic treatment on the front and back sides. The board is rectified on all edges.

## 4. Dimensions and Tolerances

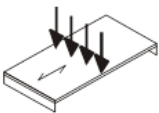
BLUCLAD PROBOARD is available in 10 mm thickness with a width 1200 mm in the following length: 2400mm.

Board tolerances (as per EN 12467 level 1): thickness:  $\pm 0.5$  mm, length  $\pm 5$  mm and width:  $\pm 3$  mm, squareness: 1.0 mm/m.

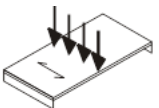
## 5. Compliance Authority

BLUCLAD PROBOARD is CE marked according to EN 12467 (Fibre- cement flat sheets - Product specification and test methods), class 2, category B.

## 6. Technical Properties



Load perpendicular to the production direction



Load parallel to the production direction

Density (mean)	Dry	EN12467	1180	kg/m <sup>3</sup>
Density (min)	Dry	EN12467	1000	kg/m <sup>3</sup>
Bending strength perpendicular		EN12467	14.0	N/mm <sup>2</sup>
Bending strength parallel		EN12467	8.5	N/mm <sup>2</sup>
Modulus of elasticity perpendicular		EN12467	9,000	N/mm <sup>2</sup>
Modulus of elasticity parallel		EN12467	7,800	N/mm <sup>2</sup>

Classification

Durability classification

EN12467

Category B

Strength classification	EN12467	Class 2
Reaction to fire	EN13501	A2-s1,d0
Gross calorific value PCS	EN 1716	0.91 MJ/kg
Impermeability test	EN12467	Pass
Warm water test	EN12467	Pass
Soak-dry test	EN12467	Pass
Freeze-thaw test	EN12467	Pass
Delamination resistance	Ad hoc	0.5 N/mm <sup>2</sup>
Hygic movement (ad hoc) from 40°C constant weight to 30°C 90%RH constant weight	Ad hoc	0.7 mm/m
Thermal expansion coefficient, $\alpha$	-	< 6.5E-6 m/mK
Thermal conductivity coefficient $\lambda$	-	0.212 W/mK
Water vapour diffusion resistance $\mu$		84 (wet) - 143 (dry).

## 7. Finishing on Bluclad

Joints between board: When used in ventilated façade, BLUCLAD PROBOARD can be installed butt to butt. When used in a non-ventilated façade, the BLUCLAD PROBOARD shall be installed with a 3mm gap.

There is no need to treat the joints between BLUCLAD PROBOARD before installing the render systems.

Surface expansion joint: Surface expansion joints are provided according to the instructions of the supplier of the render system. Typical joint width for surface expansion joint is 5 mm.

Structural expansion joint: Structural expansion joints are realized according to the instructions of the supplier of the render system. Maximal distance between expansion joint: 33m, width of structural expansion joint: 5mm.

Not all render systems are suitable for the finishing of BLUCLAD PROBOARD. The finishing system must be sufficiently flexible to accommodate thermal and hygic movements of the board. Thin flexible render shall be preferred.

The render system shall be applied following the render manufacturer instructions. The render system consists of an optional adhesive primer, a basic render (ground mortar or "base coat"), a surface reinforcement mesh and a decorative render ("top coat").

Consult the technical department for the updated list of approved renders on BLUCLAD PROBOARD. The following manufacturers of render systems offer finishing advices and guarantee statements specifically for the finishing of BLUCLAD PROBOARD: Alsecco , Bessier, Cantillana, Caparol, Hasit, Keim, Quick-Mix, Schönox, Sto, Strikotherm, Weber Saint-Gobain, Mapei. Please check with the local subsidiaries of those render manufacturers for market specific finishing advices and guarantee statements.

## 8. General processing instructions, handling, cutting and fixing

Handling: BLUCLAD PROBOARD is delivered on pallets. The boards shall be transported under a tarpaulin. The boards shall be horizontally stacked on a flat surface in a dry and

ventilated space. When stored outside, the boards shall always be protected against rain by a tarpaulin or plastic cover.

If the boards are exposed to liquid water during storage, remove the packaging and allow the boards to totally dry out before use.

We recommend storing the boards in their final location 24h min before starting installation to allow the board to balance its internal moisture content with its environment. Boards shall always be transported vertically.

Cutting, sawing and drilling: sawing and drilling must take place in a dry and ventilated environment. Drilling and saw dusts must be immediately removed from the sheet with a dry micro-fibre towel to avoid permanent stains. BLUCLAD PROBOARD can be cut by either a power saw or a handsaw.

Before sawing or drilling, the board shall lay flat on a stable sawing bench preventing excessive vibration.

Cutting/sawing: the following tools can be used:

- Universal sawing blade on fast rotation stationary sawing machines or hand circular saw with rail guidance, available diameters: 160, 190, 225 and 300 mm (available from Siniat or Leitz-Service),
- Jigsaw with carbide-tipped tooth cutting blade type T141 HM from Bosch (available from Siniat)
- Diamond cutting blade without teeth on fast rotation stationary sawing machines or hand circular saw with guidance.

Drilling: The board shall be supported around the hole to be drilled (e.g. by a wooden surface). The following tools can be used:

- for holes: carbide-tipped twist drill (or completely in carbide) with a 60° nose angle.
- for round apertures: hole saw with carbide-tipped teeth (e.g. type Pionier from Metabo).

Fixings:

BLUCLAD PROBOARD can be fixed to timber using the following fixings:

BLUCLAD PROBOARD wood screw 4.2x45 DP SQD A2/304, without predrilling, with countersunk head with milling ribs, drill point, in stainless steel, 4.2 mm diameter, length 45mm, head diameter 7,5mm. Alternatively, screws type Würth Assy Plus type 2 A2 4,0x40/26, in stainless steel. Screw's distance from edges: 15mm.

staples: ITW Haubold KG 740 C RF GEH dimensions 40/11,3/1,53 or alternatively Poppers Senco N19BGBDIN dimensions 44/11,3/1,53. Distance from edges: 12mm with 30° vertical angle.

BLUCLAD PROBOARD can be fixed to a metal frame using the following fixings:

heavy gauge metal (1 to 2mm thickness): BLUCLAD PROBOARDmetal screw 4.5x32 DP PH2 A2/304, self-drilling bimetal screws with countersunk head in stainless steel (A2), length 32mm, 4,5mm diameter, head diameter 7mm. Alternatively screws type WURTH ZEBRA 4,5x38, stainless steel. Screw's distance from edge = 15mm.

light gauge metal (0,6 to 0,9 mm): the Cedral screw ref HP 3.9x32-SP-PH2 can be used.

## 9. Health and safety

Please refer to the BLUCLAD PROBOARD material and safety datasheet.

A 2.4m x 1.2m x 10mm board weighs 40.92 kg (nominal).

The weights above are given based on maximum density and 15% moisture content. If boards are allowed to become saturated due to incorrect storage these weights can increase.

Boards shall always be manipulated by two persons minimum.

When machining BLUCLAD PROBOARD indoor (cutting, sawing or drilling), an efficient dust extraction system shall be used to collect the dust particles. If dust extraction is not efficient or when cutting with a hand saw, dust masks of type FFP2 or better according EN149:2001 shall be worn by the operator.

## 10. Application

- render carrier board for external façade systems (ventilated),
- carrier board for brick slips for ventilated façade systems,
- render carrier board for external ceiling.
- the unprotected external application of this board is not recommended.

## 11. Information

Information on the different applications can be found in the BLUCLAD PROBOARD application guidelines. They can be found on the website or can be obtained from local support. Information about external suppliers can also be downloaded from the local websites.

### Disclaimer

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