

### CemBacker Description.

Technical Datasheet May 2022

CEMBLOC's CemBacker is a high performing tile backer building board that's sole design purpose is to provide fireproof and waterproof protection for walls (12mm) and floors (6mm) in tiled rooms. Tested by market-leading tile adhesive companies ensuring the highest of standards along with largest manufacturer of ceramic and porcelain tiles in the world. Boasting an impressive strength of 105kg/m<sup>2</sup> to carry the heaviest of tiles on the market. The CemBacker offers high levels of moisture and fire resistance along with dimensional stability creating a superior all round tile back panel, which runs in it's own league when compared to traditional methods such as plasterboard and plywood which deteriorate and rot over time in wetrooms. It's resistant to water, is a non combustible, A1 fire rated solution in accordance with EN:13501-1:2019, UV stable and fully weatherproof withstanding all of nature's temperatures.

The CemBacker tile backer board is specially designed utilising a 6mm board for tiled floors, and a thicker 12mm version for tiled walls. This waterproof tile backing system inhibits any negative influence that water may have during and after the tiling process.

**CemBacker is an impermeable to water, A1 fire rated tile backing solution, as well as being able to withstand freezing temperatures and resistant to UV lights. Designed for wet room applications.**

### Advantages Of Use.

- Protects sub-construction system.
- Dirt proof.
- Environment friendly.
- Does not contain any harmful substances to health.
- 100% Asbestos free.
- A1 Fire Class (In accordance with EN 13501-1:2019).
- Does not release toxic gas during the fire.
- Resistant to moisture and water.
- Resistant to the effects of sunlight.
- Resistant to seasonal changes.
- Easy assembly and modification procedures.
- Easy to cut.
- A finishing material, eliminates drying times of wet screed.
- Extends and protects the life of insulation material when-used in heat and sound insulation systems.

- Extremely high dimensional stability (<0.19%) when-compared to chipboard, gypsum and cement particle.
- Has feature of water repellent.
- It is odorless and does not release toxic gas.
- Resistant to impacts.
- Resistant to biological and chemical wastes.
- Easy to carry, light weight.
- Insect-proof, non-putrescible, no molding.
- Offers different solutions in all areas of building projects.
- Creates facades and surfaces compatible with fire-regulations.
- Can be used with insulating material of any desired-thickness.
- Can be used in fine details with smooth cutting surfaces.
- Very high impact resistance compared to gypsum based-boards.

### Standard Dimensions.

Thickness	Dimensions
6mm (for floors), 12mm (for walls)	1200 x 600mm



## Technical Specifications.

Water Impermeability	Pass - No formation of drops of water was found after being tested.
Thermal Conductivity	0.216 W/mK
Bending Strength (Modulus Of Rupture)	MOR Average of 6mm 16,70MPa. Equilibrium condition: MOR average of 6mm: 22,58 MPa. MOR Average of 12mm 16,48MPa. Equilibrium condition: MOR average of 12mm: 22,26 MPa.
Water Absorption	<29%
Wet Expansion Rate	0.19%
Heating Shrinkage Rate	0.18%
Density	1350 kg/m <sup>3</sup> (± 50kg)
Fire Propagation	Class "0" (<2) (BS 476-Part 6)
Fire Resistance	Class 1 (BS 476-Part 7)
Combustibility	Non-Combustible
Reaction To Fire	A1 (EN 13501-1:2019)
Acoustic Rating (DnTw)	54dB <i>*Based on both sides of the wall using CemBacker 12mm along with 50mm 90kg/m<sup>3</sup> mineral fibre.</i>
Maximum Tile Weight	Up to 105kg/m <sup>2</sup>

## Areas Of Use.

Tile backer boards for use behind ceramic tiles in wet-room areas.  
Perfect for 'Ready Wall Panel' systems.  
For use as a wall finish.  
Ideal for use on pre-fabricated buildings.  
As the finishing material by just painting.

In areas where sound insulation is required.  
In thermal insulation systems.  
Undercloak backer board of roof covering materials.  
As backing material of cabinets or panels.  
On walls, parapets and ceilings of balconies and terraces.  
Soffit and fascia cladding.

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## Installation Guidelines for Cembacker 12mm (For Walls).

### Recommended Fixings.

4.2mm x 42mm self-drilling and self-countersinking.

### Step 1A. Score and snap:

Boards may be cut cleanly and easily by scoring one side of the board using a hard tipped scoring tool, then snapped over a solid block. For shapes and curves tile nippers should be used. The use of a PCD saw blade is recommended to speed up the cutting process.

Or

### Step 1B. Cut boards to size:

Cut Cembloc CemBacker using a circular saw fixed with a suitable vacuum extractor and a Polycrystalline Diamond (PCD) Saw blade to avoid excessive wear on other blade types. This method will cut boards easily at the same time mitigating dust. Our Cembloc boards can be cut with either a fine tooth hand saw or power saw, whilst ensuring suitable dust control measures are taken (eg localised extraction where possible, protective safety glasses, gloves and respiratory masks as per MSDS) and observing all necessary health and safety regulations. Boards should be fixed with the board text facing upwards (smooth texture).

### Step 2. Stick boards to wall:

#### Battens

Run a bead of Cembond - MAX Strength Hybrid Adhesive/Sealant 310ml along the timber or metal stud work before offering up the first board (this is to create waterproof seal around the screw hole). The CemBacker is then to be applied in a brick pattern. Studs to be max 600mm centres with cross battens on board joints.

#### Solid Surface

Secure boards using a tile adhesive and dot and dab technique.

### Step 3. Secure with screws:

#### Battens

Use 9Nr Cembloc FCB Screws 4.2mm x 42mm self-drilling and self-countersinking cement screws per board to secure them in place. Screws will prevent boards moving as a result of the Cembond - MAX Strength Hybrid Adhesive/Sealant 310ml expanding slightly as it dries.

#### Solid Surface

Secure boards using five (9) fixings, drill the boards, then plug and screw.

### Step 4. Waterproof the joints:

Run a bead of Cembond - MAX Strength Hybrid Adhesive/Sealant 310ml along all edges before the next board is offered up. This reinforces and waterproofs the joints, eliminating the need to tape them. Wipe off any excess adhesive using a damp cloth.

### Step 5. Prime the board:

We always recommend priming the CemBacker tile backer boards, to increase adhesion and adhesive open times. Before priming, make sure the surface is clean and dry. Apply using a roller or sponge.

## Installation Guidelines for Cembacker 6mm (For floors).

### Recommended Fixings.

4.2mm x 25mm self-drilling and self-countersinking.

### Step 1A. Score and snap:

Boards may be cut cleanly and easily by scoring one side of the board using a hard tipped scoring tool, then snapped over a solid block. For shapes and curves tile nippers should be used. The use of a Polycrystalline Diamond (PCD) Saw blade is recommended to speed up the cutting process.

Or

### Step 1B. Cut boards to size:

Cut Cembloc CemBacker using a circular saw fixed with a suitable vacuum extractor and a Polycrystalline Diamond (PCD) Saw blade to avoid excessive wear on other blade types. This method will cut boards easily at the same time mitigating dust. Our Cembloc boards can be cut with either a fine tooth hand saw or power saw, whilst ensuring suitable dust control measures are taken (eg localised extraction where possible, protective safety glasses, gloves and respiratory masks as per MSDS) and observing all necessary health and safety regulations. Boards should be fixed with the board text facing upwards (smooth texture).

### Step 2. Stick boards to floor:

Screw down existing floorboards firmly and sweep clean. Run two beads of Cembond - MAX Strength Hybrid Adhesive/Sealant 310ml to the back of the board.

### Step 3. Secure with screws:

Use 9Nr Cembloc FCB Screws 4.2mm x 25mm self-drilling and self-countersinking per board to secure the board in place. Position the screws 25mm from the edge of the boards. Screws will prevent boards moving as a result of the Cembond - MAX Strength Hybrid Adhesive/Sealant 310ml expanding slightly as it dries.

### Step 4. Waterproof the joints:

Run a bead of Cembond - MAX Strength Hybrid Adhesive/Sealant 310ml along all edges before the next board is offered up. This reinforces and waterproofs the joints, eliminating the need to tape them. Wipe off any excess adhesive using a damp cloth.

### Step 5. Prime the board:

We always recommend priming the CemBacker tile backer boards, to increase adhesion and adhesive open times. Before priming, make sure the surface is clean and dry. Apply using a roller or sponge.

### Note.

For all tiling applications we would recommend priming the top surface of the boards with 1-2 coats of Professional Primer or as advised from the manufacturer of the desired tiles.

### Which way round do I lay the CemBacker?

Lay the Cembacker print side up. You will see the text on top corner of the board. If this text can not be located, the boards have a smooth side (the printed side) and to the rear, a slightly textured side. For the most part, it does not matter which side is tiled onto, however, we would recommend tiling onto the smoother surface.

## Material Safety (MSDS).

### Health And Safety Best Practises.

**Dust:** When processing the boards, for example, cutting, drilling, sanding etc, these will generate dust. As a result, attention should be paid to the dust particles generated and measures put in place to minimise their effect. Please process the boards in a well ventilated area with the use of localised extraction to avoid dust inhalation.

#### Skin Contact:

- **Acute Effect:** The dust from these products may cause irritation of the skin due to friction but is not absorbed through the skin.
- **Precautions:** Direct contact with dust and debris should be avoided by wearing full body covering overalls. .
- **Measures taken if effect experienced:** Wash thoroughly with soap and water.

#### Ingestion:

- **Effect:** When processing, the dust may affect food and beverages, indigestion of the dust may result in abdominal discomfort.
- **Precautions:** Do not attempt to eat the board, put the board near the face and avoid touching your face and mouth when previously dealt with the board.
- **Measures taken if effect experienced:** Ingestion is unlikely due to product size. However should this occur, seek medical attention immediately.

#### Inhaled:

- **Effect:** The dust from processing may cause irritation of nose, throat, lung and cause coughing and sneezing via breath.
- **Precautions:** During dry cutting ,drilling, routing , sanding and any continuous handling where dust is generated, used an approved particulate dust mask .
- **Measures taken if effect experienced:** Go into a open area with plenty of air circulation outdoors and drink plenty of water, until acute effects have gone.

If any acute effects persist, seek medical attention immediately.

### Handling Requirements.

Minimise the dust generation at the workplace. When there is cutting, sawing, sanding or grinding during the installation and handling of this product, it should be carried out at well ventilated area (e.g. outdoor, open-area). Work area should be cleaned regularly by wet sweeping or vacuuming.

Cembloc panels are stacked on timber pallets. The boards must be stored in a ventilated and dry environment on a flat, level surface protected from contamination. To avoid excessive flexing of the boards, long edges must be supported when lifting and handling.

#### Storage:

Store in a dry well ventilated area. The boards should be protected from excessive humidity and temperature changes, such as rain, sun, wind and moisture. The boards must always be stored on flat level surface.

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