

FLAT PANEL

Cement based, precast GRC facade panel

Product Information

Betonex CBOARD Flat Panel is a cement based, alkali resistant glass fibre reinforced concrete (GRC) precast facade panel specially developed for facade cladding systems.

Betonex CBOARD facade products have been developed as a result of long years of R&D activities within the framework of university industry cooperation abroad.

General Characteristics

- Cement based.
- High-strength and ductility.
- Fire resistant and non-combustible.
- Durable and lightweight.
- Highly resistant against cracking.
- Unique characteristic.
- Suitable for interior and exterior applications.
- Suitable to be cut to desired size.
- Can be painted to desired color.

Special Structure

Betonex CBOARD Flat Panel's special structure is created using natural materials which makes it eco-friendly while keeping it strong, stable, durable and lightweight.

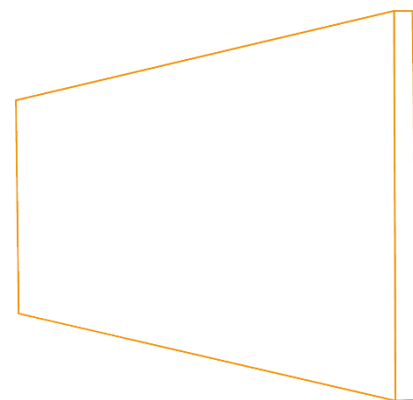
Thanks to its cutting-edge manufacturing technology, CBOARD panels stand out among its alternatives with a fixed-thickness and stable production.



Technical Properties

Technical Properties	Flat Panel
Compressive Strength	30-50 MPa*
Bending Strength	8-20 MPa*
Proportionality Ratio	8-17 MPa*
Minimum Expansion	0,58 %
Impact Strength	5-16 kJ/m ² *
Elasticity Modulus	12000 MPa
Density	1,4-1,9 g/cm ³ *
Thermal Expansion Coeff.	1,2x10 ⁻⁵ /°C
Thermal Conductivity	0,6-1,4 w/mK*
Fire Resistance	A1
Shrinkage Value	0,5-1,5 mm/m*
Swelling Value	0,5-1,5 mm/m*
Water Absorption	8-13 %*
Water Vapor Diffusion	60

* Desired value in the range could be manufactured depending on the specification requirements.



 **CBOARD®**

Fastening Options

Betonex CBOARD Flat Panel can be installed on either a steel or aluminum substructure using visible screw-retained, visible rivet-retained or hidden channel system.

Dimensions

- Up to 1200x1800mm panels, may be increased upon request.
- Between 8-30mm thickness.

Installation Details

Visible screw/rivet-retained system:

- The wall surface is cleansed of all kinds of dust, debris, and foreign materials.
- Using a suitable wall plug, L brackets are installed.
- Vertical T or box profiles are fixed to the L brackets. If specified on the Project or the Specification, heat insulation is placed on the wall between the profiles.
- CBOARD Flat Panels are fixed to the vertical profiles using screws/rivets.
- PU-based sealant is applied to the joints and over the screws/rivets.
- CBOARD Flat Panels are painted to the desired color and the installation is completed.

Hidden channel system:

- The wall surface is cleansed of all kinds of dust, debris, and foreign materials.
- Using a suitable wall plug, L brackets are installed.

- Vertical T or box profiles are fixed to the L brackets. If specified on the Project or the Specification, heat insulation is placed on the wall between the profiles.
- Horizontal hidden channel profiles are fixed to the vertical profiles.
- CBOARD Flat Panels are installed on the channels.
- PU-based sealant is applied to the joints.
- CBOARD Flat Panels are painted to the desired color and the installation is completed.

Cleaning & Maintenance

Depending on the location of the cladding and dirt, CBOARD Flat Panel facade may be cleaned at an interval of 3-5 years. The cleaning should be made without any chemicals or high-pressure cleaners. Re-painting may be considered to achieve the first-day-look of the facade.

Responsibility

Technical findings and the application suggestions are based on experimental data. Actual values can vary due to conditions out of control. Suggestions do not take on any other obligations. When the new version of this document is issued, old version becomes invalid.