



# UNICEM

## Fiber Cement Board

**DATA SHEET**

10 / 2021

## UNICEM BOARDS® Fiber Cement Board (FCB)

UNICEM Fiber Cement Board consists of strong core of Portland cement, silica sand, cellulosic fibers and other additives encased in to give the product high fire , moisture and climatic conditions.

UNICEM Fiber Cement is the ideal substrate for exterior walls in ventilated or water-managed (directly-applied) systems. Also for façade renovations, exterior ceiling applications and flooring systems.

**AHMED BADAWY**  
QA/QC Manager





### Description

UNICEM Liner Fiber Cement Board is a robust, non-combustible panel made of aggregated Portland cement, Silica sand and special kinds of cellulosic fibers to offer all the benefits of a dry panel system with higher strength and resistance to atmospheric tough conditions. And to be used also as building system instead of normal block

UNICEM Liner Fiber Cement Board is coming with variety of designs and dimensions that can be used to give the façade requirements for interior or exterior surfaces

### Application

UNICEM Liner Fiber Cement Board is a high performance cement board used as the cladding component of drywall constructions such as:

- Fire and Moisture resistant partitions using metal frames
- Fire and Moisture resistant suspended ceilings using metal frames
- Fire and Moisture resistant furring and wall linings
- Fire and Moisture resistant shaft-walls

It can be also used in exterior applications for walls and ceilings as a directly-applied (water-managed) or ventilated system and in thermal insulation composite systems

### Characteristics

- Lightweight constructions
- Easy, fast and dry application
- Good sound insulation performance
- High Fire and Moisture resistance performance
- Alternative to brick and block-work
- Weather and water-resistant "more than normal UNICEM boards"
- Strong impact, Weather and water resistant, non-combustible with high durability "more than normal UNICEM boards"
- Can be used in furniture industry instead of plywood
- Simple and easy to install
- Environmental friendly
- Limitless design options

### Handling and installation

UNICEM Liner Fiber Cement Board is attached to a vertical stud frame. The substructure should be selected according to the static requirements. Depending on these requirements, it is possible to use single or double-layer planking or a combination with other United construction boards.

### Technical Data

<b>Appearance</b>	Light gray color	<b>Compressive strength (Mpa)</b>	≥ 15
<b>Thickness (mm)</b>	4.5, 5, 6, 9, 12, 15, 16, 18	<b>Module Of Rapture (Mpa)</b>	(Wet: ≥ 7) (Equilibrium: ≥ 10)
<b>Tolerance (%)</b>	± 6 %	<b>Module Of Elasticity (Mpa)</b>	5400 ± 50 "wet"
<b>Width (mm)</b>	600 to 1220	<b>Adhesion/Lamina Bond Strength (Mpa)</b>	≥ 2.1
<b>Length (mm)</b>	2000 to 4000	<b>Tensile Strength (Mpa)</b>	≥ 2.3
<b>Tolerance (mm)</b>	± 0.3	<b>Screw Withdrawal Strength (N)</b>	≥ 1500
<b>Board type</b>	ASTM C1186 - type A grade 3 BS-EN-12467- class 3 category A	<b>Nail Withdrawal Strength (N)</b>	≥ 900
<b>Edge Details</b>	Square Edge  Recessed Edge  Beveled Edge 	<b>Thermal Conductivity (W/mK)</b>	0.07 to 0.19 "at 50°" ASTM 517
<b>Squareness (mm)</b>	≤ 2	<b>Linear coefficient of thermal expansion (mm/mm/°C)</b>	7.4 x 10 <sup>-6</sup>
<b>Density (kg/m<sup>3</sup>)</b>	≥ 1350	<b>Reaction to Fire (ASTM E84)</b>	A1- s1,d0
<b>Asbestos Content</b>	None	<b>Fire Propagation Index</b>	0
<b>Formaldehyde (ppm)</b>	0.002 ppm	<b>Surface Spread of flame</b>	0
<b>Total VOC Content (mg/m<sup>3</sup>)</b>	≤ 0.023	<b>pH value</b>	8.5 – 9.5
<b>Moisture Content (%)</b>	≤ 10	<b>Mold Growth (ASTM D3273 %)</b>	0
<b>Moisture Movement (%)</b>	≤ 0.05	<b>Water Absorption (%)</b>	
<b>Surface Water Absorption (g/ m<sup>3</sup>)</b>	≤ 1500	"ASTM C1196M"	≤ 12 after 2 hours water immersion
		"ASTM C1196M"	≤ 35 after 48 hours water immersion
		<b>Fire Resistance (ASTM E119, EN 1363,1364)</b>	120 mins for 15mm single layer system, 60 mins for 12mm Single layer system.