

FCEM-BOARD

Technical Guide

FIBER CEMENT-BOARD

FCEM-BOARD 1200 X 2400 X 12.5 TE

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Mada Trade co.



ISO 9001:2015
CERTIFIED
QUALITY MANAGEMENT SYSTEM
970424A



ISO 14001:2015
CERTIFIED
ENVIRONMENTAL MANAGEMENT SYSTEM
970424B



ISO 45001:2018
CERTIFIED
OCCUPATIONAL HEALTH & SAFETY
MANAGEMENT SYSTEM
970424C



FIBER CEMENT BOARD

FCEM-BOARD

Advantage



Fire resistance



Termite resistance



Sound & thermal insulation



Easy to work with



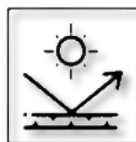
Weather resistance



High impact strength



Easy to decorate



Radiation resistance



Chemical resistance

FCEM-BOARD RANGES

- FCEM-BOARD RG (regular) is used for interior partitioning, dry lining, interior and exterior suspended ceilings. It can be installed in either direction in FCEM-BOARD systems while offering durable and reliable results with no required maintenance.
- FCEM-BOARD WP (waterproof) contains silica oil, it helps protect tile installations and wall cavities from moisture penetrations, eliminating the need to spend extra time applying waterproof coating across the entire surface area of your wall. Excellent waterproofing solution for external and interior use.
- FCEM-BOARD HD (high density) is a very firm and durable board with superior physical and mechanical properties. It can be used in external partitions and facades subjected to rain and wind pressures.

| Type | Width | Legth | Edge |
|--------------|-------|-----------|-------|
| CEM-BOARD RG | 1200 | 2400-3000 | SE/TE |
| CEM-BOARD WP | 1200 | 2400-3000 | SE/TE |
| CEM-BOARD HD | 1200 | 2400-3000 | SE/TE |



FIBER CEMENT BOARD



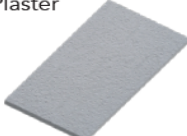


FCEM-BOARD

□ PHYSICAL APPEARANCE

With meticulous design and continuous refinement, FCEM-BOARD is a versatile board that offers the texture of timber, stone, marble, and more whilst delivering the maintenance and durability of fiber cement boards.

Made from an advanced material that's five times thicker than typical vinyl cladding, FCEM-BOARD is fire, moisture, rot, and pest resistant. It's unaffected by rain and hail damage and can be installed to withstand winds.

From classic to contemporary, FCEM-BOARD will achieve the perfect look and finish of all interior or exterior projects.

| Pattern | Thickness | Dimensions (LxW) |
|-----------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------|
| CEM-BOARD Mono  | 4.5-20 mm | 1200 x 2400 mm (Special production and cutting are performed based on project requirements.) |
| CEM-BOARD Wood  | 8-20 mm | 1200 x 2400 mm (Special production and cutting are performed based on projects requirements.) |
| CEM-BOARD Plaster  | 8-20 mm | 1200 x 2400 mm (Special production and cutting are performed based on projects requirements.) |
| CEM-BOARD Stone  | 8-20 mm | 1200 x 2400 mm (Special production and cutting are performed based on projects requirements.) |
| CEM-BOARD Line  | 8-20 mm | 1200 x 2400 mm (Special production and cutting are performed based on projects requirements.) |



FIBER CEMENT BOARD

FCEM-BOARD

PHYSICAL SPECIFICATIONS

| PROPERTIES | UNIT | Cboard® RG | Cboard® WP | Cboard® HD | STANDARD |
|---------------------------------------------|-------------------|---------------|---------------|---------------|-------------|
| Thickness | mm | 12 | 12 | 12 | ASTM C 1186 |
| Density | Kg/m ³ | 1309 | 1446 | 1730 | ASTM C 1186 |
| Flexural Strength Longitudinal Direction | MPa | 12.7 | 16.86 | 22.04 | ASTM C 1186 |
| Flexural Strength Transverse Direction | MPa | 7.24 | 11.05 | 12.19 | ASTM C 1186 |
| Water Absorption | % | 31.98 | <5 | 23.16 | ASTM C 1186 |
| Moisture Content | % | 9.86 | 4.63 | 5.13 | ASTM C 1186 |
| Linear Change | % | 0.09 | 0.03 | 0.04 | ASTM C 1186 |
| Direct Screw Withdrawal | N | 742 | 677 | 492 | ASTM C 1186 |
| pH Value | - | 9.9 | 9.91 | 10.47 | ASTM C 1186 |
| Thermal Conductivity | W/m.K | 0.2135 | 0.1546 | 0.3274 | ASTM C 518 |
| Smoke Development Index (SDI) | - | 5 | 5 | 5 | ASTM E 84 |
| Flame Spread Index (FSI) | - | 0 | 0 | 0 | ASTM E 84 |
| Reaction to Fire | - | Class A | Class A | Class A | ASTM E 84 |



FIBER CEMENT BOARD

FCEM-BOARD

TECHNICAL AND PHYSICAL SPECIFICATION

| board length mm | Units | Performance |
|---------------------------------------------------|--------------|-------------------------------------------------------|
| Apparent Density | Kg/m3 | >1200 |
| Standard Weight (for 6mm) | Kg/m2 | 8.9 |
| Thickness of Boards (range) | mm | 4 to 25 |
| Dimensions of the Boards | mm | 1220 X 1830, 1220 X 2440, 1220 x 2745 and 1220 x 3050 |
| Modulus of Rupture EMC - Minimum | MPa or N/mm2 | 10 |
| Free Moisture Content | % | 6 |
| Water Absorption -22Hrs . | % | 36 |
| lamina Board Strength | MPa or N/mm2 | 0.9 |
| Additional characteristics | | |
| Thermal Conductivity (k) (30° C Mean Temperature) | W/m.K | |
| p H Value | | 10.4 |
| Screw Withdrawal (on face) | N | 1220 |
| Nail Withdrawal (on face) | N | 1010 |

APPLICATION MATRIX

| Application (internal) | Thickness (mm) | | | | | | | | | | |
|--------------------------------------|----------------|---|---|---|----|----|----|----|----|----|----|
| | 4 | 6 | 8 | 9 | 10 | 12 | 14 | 16 | 18 | 20 | 25 |
| False ceiling | | | | | | | | | | | |
| Partitions | | | | | | | | | | | |
| Wall Paneling | | | | | | | | | | | |
| Mezzanine Flooring | | | | | | | | | | | |
| Doors | | | | | | | | | | | |
| Wet areas | | | | | | | | | | | |
| kitchen Cabinets/ wardrobes /Shelves | | | | | | | | | | | |
| Application (external) | | | | | | | | | | | |
| Prefab structures | | | | | | | | | | | |
| Wall Cladding | | | | | | | | | | | |
| Sing Board | | | | | | | | | | | |
| Roof Underlay | | | | | | | | | | | |
| Duct Covering | | | | | | | | | | | |



FIBER CEMENT BOARD

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□ Handling and Storage

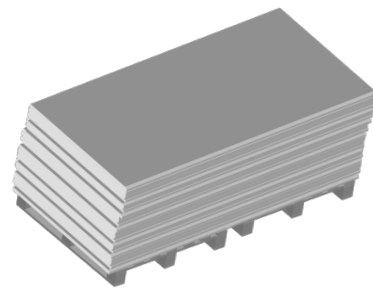
Handling

1. Boards should always be carried on long edges (width wise) by two (for less than 4 feet x 4 feet size) or four persons (for more than 4 feet x 4 feet size) to avoid damages to the board and excessive strain on people handling them.
2. While loading and unloading of board of 1.2m x 2.4m or more, it should be lifted by four people to support the four corners.
3. Maximum two to three sheets should be handled for thickness of 6 mm or less. For thickness higher than 6 mm, single sheet should be handled at a time.
4. During transportation, boards should be stacked flat, edges and corners fully protected and adequate packing material should be used on both bottom and sides.
5. Dirt settling on the textured surface of designer boards while cutting, sawing and screwing should be avoided.
6. Fiber cement boards should be handled without opening the pack. While handling the board, care should be taken in removing packing strips to avoid damage to the board.

Storage

1. Board must be stacked horizontally, never inclined, on a smooth and leveled surface, preferably 6 inches to 8 inches above the levelled surface.
2. Board should always be stored under adequately ventilated covered space without allowing direct exposure to sunlight, rain, etc. In case of non-availability of covered space, board should be covered with polythene sheets and must be stacked on pallets with proper stretch wrapping to protect from weathering forces.
3. If board gets wet or damp due to wrong storage, then it should be dried out in natural conditions before further handling. In any case, boards should be installed in position within 2-3 weeks of procurement.
4. Boards should be stacked to the maximum height of 3 feet or 1 meter per stack. Adjacent stacks should be stacked with minimum gap of 1 feet or 300 mm.

| Fiber cement Board Size | Load Qty / 1X20' FCL | No. Of board / Pallet |
|-------------------------|----------------------|-----------------------|
| 2400mm x 1200mm x 6 mm | 835 | 97 |
| 2400mm x 1200mm x 9 mm | 558 | 65 |
| 2400mm x 1200mm x 12 mm | 418 | 48 |
| 2400mm x 1200mm x 18 mm | 279 | 33 |



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MADA TRADE CO.

EL-THAGR COMPLEX – BUILDING NO. 2, APARTMENT
105, EL-NOZHA AIRPORT ROAD ,DHL BUILDING -
5431001 ,ALEXANDRIA, EGYPT..

Tel: +20 3 3832405 , +20 3 3832406 Fax: +20 3 3808003
E-mail: sales@mada-trade.com
<https://www.mada-trade.com/>



Mada Trade co.

