

FCEM-BOARD

Technical Data Sheet

Advantage



Fire resistance



Termite resistance



Sound & thermal insulation



Easy to work with



Weather resistance



High impact strength



Easy to decorate



Radiation resistance



Chemical resistance

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.





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Technical Specification

Test	Fiber cement board				
Dimension	2400 mm x1200 mm				
Thickness	6mm, 8mm, 9mm, 12mm, 15mm, 16mm, 18mm Special Thickness can be produced on demand				
Edges	Squared				
Density	1.3 g/cm ³ + 0.05 g/cm ³				
Flexural Strength	Wet Strength:> 7.0 MPa (Grade 2)				
Water Absorption	< 35%				
Water Tightness	PASS				
Moisture Movement	0.04				
Moisture Content	< 12%				
Thermal Conductivity at 250°C	0.15 w/m.K				
Ph Value	7-8				

Acoustic Rating -Tested as per ASTM E90

Fire resistant properties	Fiber cement board				
Combustibility	Class 'O' - Non Combustible				
Ignitibility	PASS				
Fire Propagation Index	I= 0				
Surface Spread Of Flame	Class - 1				

*Given test results are based on 9mm thick specimen

Different dimension can be made as required.







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APPLICATION MATRIX

	Thickness (mm)										
Application (internal)	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											



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Pigmented Cement Mixes

integrate pigments directly into the cement mix during production. This results in a uniform color throughout the board's thickness.

Characteristics:

The color is intrinsic to the material, so scratches or chips are less noticeable. Often used for natural, earthy tones. Limited to muted or subdued shades due to the cement base.

Common Colors:

- Light Gray
- Dark Gray
- Beige
- Terracotta
- Off-White

Applications:

- Ideal for projects where a natural, understated look is desired.
- Suitable for facades and roofing in rustic or industrial designs.







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Fiber cement board applications, categorized by their primary use:

1. Exterior Facades

Fiber cement boards are one of the most popular materials for exterior cladding due to their durability and low maintenance.

Applications:

- Residential Homes: Used as siding material to create modern, rustic, or traditional looks.
- Commercial Buildings: Ideal for office buildings, schools, and retail spaces.
- Industrial Structures: Provides a rugged, industrial aesthetic for warehouses and factories.
- Developments: Combines functionality with aesthetic appeal in urban environments.

Advantages:

- Resists weathering, UV rays, and temperature fluctuations.
- Available in a variety of colors, textures, and finishes.
- Lightweight compared to brick or stone, reducing structural load.

2. Roofing

Fiber cement boards are used in roofing systems, especially in areas prone to extreme weather conditions.

Applications:

- □ Flat Roofs: Provides a durable, waterproof surface.
- Sloped Roofs: Can mimic the appearance of slate or tile roofing.
- Overhangs and Eaves: Used for decorative soffits and fascia boards.
- Roof Underlayment: Acts as a protective layer beneath other roofing materials.

Advantages:

- Fire-resistant and non-combustible.
- Long-lasting and resistant to rot, pests, and moisture.
- Low maintenance compared to traditional roofing materials.







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3. Interior Walls and Ceilings

Fiber cement boards are increasingly used for interior applications due to their clean, modern look and ease of installation.

Applications:

- □ Feature Walls: Creates an industrial or minimalist aesthetic.
- Ceilings: Used in both residential and commercial spaces for a sleek finish.
- Wet Areas: Ideal for bathrooms, kitchens, and laundry rooms due to moisture resistance.
- □ Partition Walls: Provides sound insulation and fire resistance.

Advantages:

- Easy to clean and maintain.
- Resists mold, mildew, and humidity.
- Can be painted or finished to match interior decor.

4. Flooring Systems

While not as common as other applications, fiber cement boards are sometimes used in flooring systems, particularly in industrial or high-traffic areas.

Applications:

- □ Subfloors: Provides a stable and durable base for tiles, hardwood, or carpet.
- □ Industrial Floors: Used in warehouses, factories, and workshops.
- □ Outdoor Decks: Offers a slip-resistant surface for patios and decks.

Advantages:

- □ High load-bearing capacity.
- □ Resists water and wear-and-tear.
- Compatible with underfloor heating systems.





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5. Soffits and Fascia Boards

Fiber cement boards are commonly used for soffits (undersides of roof overhangs) and fascia boards (vertical finishing edges along the roof).

Applications:

- $\hfill\square$ Soffits: Protects the underside of roofs while allowing ventilation.
- □ Fascia Boards: Provides a clean, finished edge along the roofline.

Advantages:

- □ Weatherproof and long-lasting.
- Resists warping, cracking, and pest damage.
- $\hfill\square$ Available in matching colors for seamless integration with facades.

6. Fire-Rated Applications

Due to their inherent fire-resistant properties, fiber cement boards are often used in fire-rated walls, ceilings, and floors.

Applications:

- □ Firewalls: Used in commercial and industrial buildings to prevent the spread of fire.
- Ceiling Linings: Provides additional fire protection in multi-story buildings.
- □ Fire Doors: Integrated into door assemblies for enhanced safety.

Advantages:

- $\hfill\square$ Non-combustible and heat-resistant.
- □ Meets stringent fire safety codes and standards.
- □ Reduces the risk of fire spreading in critical areas.





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7. Waterproofing and Damp-Proofing

Fiber cement boards are inherently water-resistant, making them ideal for areas exposed to moisture.

Applications:

- □ Bathrooms and Kitchens: Used as wall panels or backsplashes.
- Basements: Provides a moisture barrier for below-grade walls.
- Swimming Pool Areas: Resists chlorine and humidity in pool enclosures.

Advantages:

- Does not absorb water or swell like wood or drywall.
- Prevents mold and mildew growth.
- Easy to clean and maintain.

8. Modular and Prefabricated Construction

Fiber cement boards are widely used in modular and prefabricated construction due to their lightweight nature and ease of installation.

Applications:

- Modular Homes: Used for walls, roofs, and facades in prefabricated housing.
- Temporary Structures: Ideal for site offices, cabins, and emergency shelters.
- Shipping Containers: Provides insulation and a finished look for container homes.

Advantages:

- Reduces construction time and labor costs.
- Compatible with modular assembly techniques.
- Durable and weather-resistant for portable structures.





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9. Agricultural and Rural Applications

Fiber cement boards are used in agricultural settings due to their durability and resistance to harsh environmental conditions.

Applications:

- Barns and Sheds: Provides a low-maintenance exterior cladding option.
- Livestock Housing: Resists moisture, pests, and odors.
- Silos and Storage Units: Durable and weatherproof for grain or equipment storage.
 Advantages:
- □ Resists rot, corrosion, and pest damage.
- □ Withstands extreme weather conditions.
- □ Cost-effective for large-scale projects.

10. Marine and Coastal Applications

In coastal areas, fiber cement boards are preferred for their resistance to saltwater, humidity, and strong winds.

Applications:

- Beachfront Homes: Provides a durable facade that resists salt spray.
- Boat Houses and Marinas: Used for walls, roofs, and decking.

Coastal Infrastructure: Ideal for lighthouses, jetties, and other marine structures. Advantages:

- □ Resists corrosion and salt damage.
- Long-lasting in humid and salty environments.
- Low maintenance compared to traditional materials.





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11. Acoustic Panels

Specialized fiber cement boards with acoustic properties are used to reduce noise transmission in buildings.

Applications:

- □ Soundproof Walls: Used in recording studios, theaters, and cinemas.
- Ceiling Tiles: Installed in offices, schools, and hospitals to absorb sound.
- □ Partitions: Provides privacy and noise reduction in shared spaces.

Advantages:

- Absorbs and dampens sound waves.
- Combines acoustic performance with durability.
- Easy to install and maintain.

12. Decorative Elements

Fiber cement boards can be used for decorative purposes, adding texture and character to architectural designs.

Applications:

- □ Facade Patterns: Creates geometric or artistic designs on building exteriors.
- □ Interior Accents: Used for feature walls, columns, or ceiling details.
- □ Signage and Branding: Customizable for corporate logos or branding elements.

Advantages:

- Available in a variety of textures, finishes, and colors.
- Can be cut into custom shapes for unique designs.
- Durable and weather-resistant for outdoor use.





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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 nonavailability 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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