

# Building Material



**CALCIUM SILICATE BOARD**

**FIBER CEMENT BOARD**

**WOOD GRAIN FIBER CEMENT CLADDING**

**COLORFUL FIBER CEMENT BOARD**

**INTERIOR DECORATIVE CEMENT BOARD**

**ANTI-SAGGING SUSPENDED CEILING**

# Why choose us

## advantage

- ◆ Obtained Nine National Patents, include Four Invention Patents and Five Utility Model Patents
- ◆ Deputy president of China Concrete and Cement Product Association- Calcium Silicate /Fiber Cement Board Branch
- ◆ The drafter and expurgator of China Industrial Standard
- ◆ National high and new technology enterprise
- ◆ Famous brand of Shandong Province, Famous brand around Bohai Sea Region
- ◆ Twenty seven years production time, 20 years export experience
- ◆ Assessed by CE Authentication, Passed ASTM C 1186 Test and National standard test

## Certificate



## Production line display



## Enterprise core value

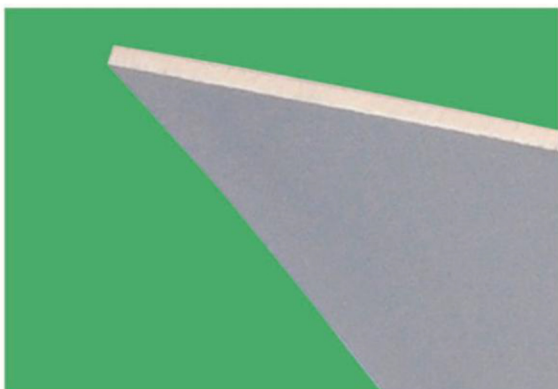
Responsibility, Creativity, Harmony, Win-win

Enterprise vision: Most dynamic and most respected in the industry

Enterprise mission: Care staff、Serving customer、Return family、Social Responsibility

## board characteristics

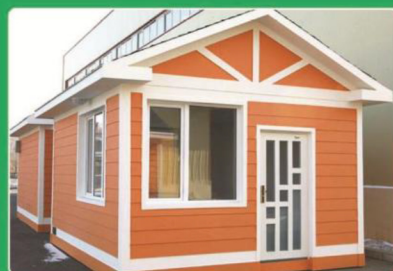
### Product appearance



### Property contrast on decorative materials

The characteristics are from <<New Housing Materials Technical Manual>>, (China Building Materials Industry Publishing House, ISBN 7-80090-249-8/TU.37), just as a comprehensive contrast on following materials.

Item	Lutai Board	Gypsum Plaster Board	Magnesium Board	TK Board (Glass Fiber Cement Board)
Raw Materials	Cement、 Quartz sand、 fiber、 others	Gypsum、 Paper	Magnesium Oxide、 Magnesium Chloride	C-Glass、 Short Mineral wool、 Low Alkali Portland
Anti-Bending Strength (MPa)	≥12	4~5	≤12	6~8
Fire-proof Rate	A-class incombustible (GB8624-2012)	Non-Flammable	incombustible	incombustible
Incombustibility(min)	≥240	60	50	70
Damp-proof Rate	After wetting, the strength drops by 20-40%, recovers by 100% after dryness	Distortion after wetting, beyond retrieve	Distortion after wetting, beyond retrieve	Distortion after wetting, beyond retrieve
Use Age	More than 20 years	Sagging when moisture absorption, short lifetime	Sagging when moisture absorption, short lifetime	Sagging when moisture absorption, short lifetime



# Fiber cement /calcium silicate board – 5A Interior series

fiber cement/calcium silicate board is a stable performance and light weight building &decoration board used siliceous and calcareous materials as major and natural fiber reinforced, with the process of pulping, forming, pressing, autoclaving, drying, and surface treatment. The main feature is stable performance, high strength, fire-proof performance, easy construction and so on. Now, we named them Lutai 5A Interior Wall.

Product standard : JC/T412.1-2018 <Fiber Cement Flat Board>

JC/T564.1-2018 <Fiber Reinforced Calcium Silicate Board >

## 5A Quality

Asbestos free, 100% Non Asbestos  
 A class incombustible (GB8624-2012)  
 A class decorative material  
 ASTM C 1186 standard  
 Assessed by CE standard

## Product characteristics

Materials: Tobermorite crystals, quartz sand, imported wood pulp ...  
 Fire-proof Rate: A-class incombustible (GB8624-2012)  
 Incombustibility (min): 240 minutes (GB/T9978-2008)  
 Density: 1.2-1.4g/cm<sup>3</sup>  
 Water content ratio: ≤10%  
 Swelling ratio: ≤0.25%  
 Shrinking ratio: ≤0.5%  
 Anti-bending strength: ≥12MPa  
 Radioactivity: standard of GB6566-2010 (A-class Decoration Materials)

## Size

Thickness(mm)	Length x width (mm)	Surface	Edge
5	2400x1200mm 2440x1220mm 3000x1200mm 3000x1220mm Cut as the requirement	Sanding/without sanding	Square edge Tapered edge
6			
8			
9			
10			
12			
14-30			

## Recommend application

Partition board (office, emporium, hotel, hospital, school, station and so on)  
 Interior panel (carriage, marine construction, vessel and so on) suspended ceilings

## Recommend application: Lightgauge Steel Joist Partition System

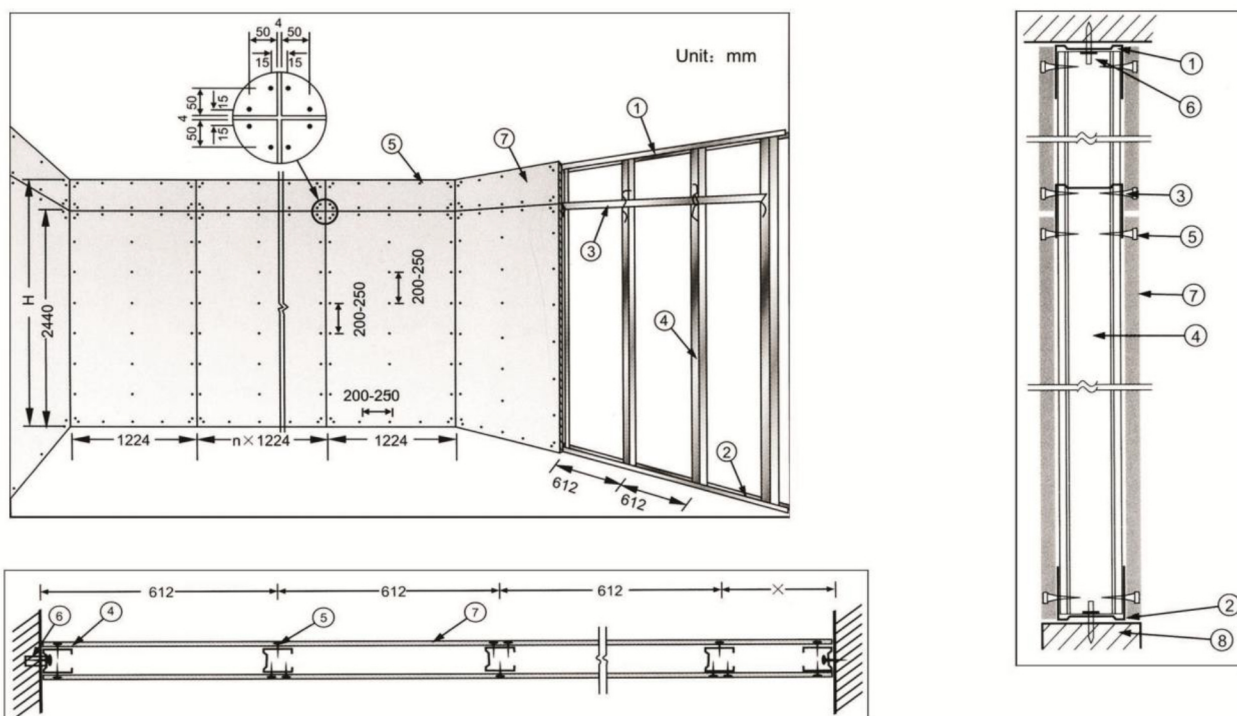
### Partition system installation technical points

Mark the accurate location of ceiling keel, floor keel, door & window, sanitary fixture and pipe according to design drawing. The vertical keels should be arranged in turn in the same direction and make sure them upright, the distance between centers is 400mm ~ 600mm.

The boards should be longitudinal laid if the wall needs a higher fireproof rate and the joints staggered.

The distance between boards is 4 ~ 5mm, between board and floor is 5mm. the center distance of tapping screws is 200 ~ 300mm, between tapping screw and board edge is 15mm, between the head tapping screw and corner is 50mm, drive the tapping screw into board for 1mm.

### Lutai board partition system structure chart



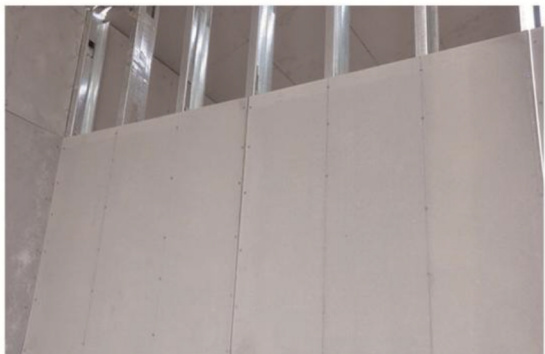
- 1. Head keel      2. Floor keel      3. Crossbar keel      4. Vertical keel      5. Tapping screw
- 6. Expansion screw      7. Lutai board      8. Concrete skirting board (waterproof)



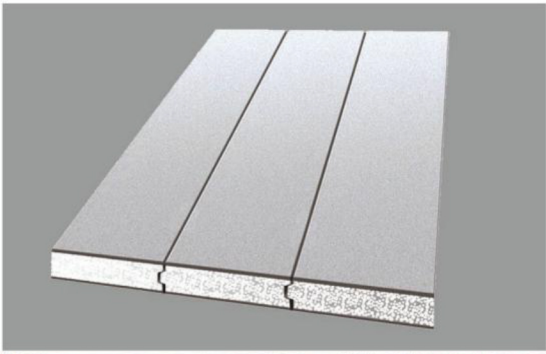
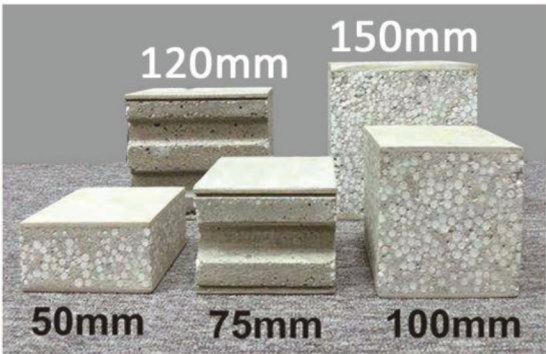
# Recommend application: Lightweight Foam/EPS Cement Wall

Lightweight foam cement wall system is based on the frame of light steel keel , 5A interior board used as the surface board on the two sides of C type keel column. The lightweight foam cement material will be filled in between surface board and keel. After dried, it will become solid and light wall. The system has the advantage of lightweight、 fireproof、 waterproof、 energy-save、 soundproof、 simple structure and so on.

Lightweight Foam Cement Panel (PLC WALL)



Lightweight EPS Cement Sandwich Panel



## Fiber cement /calcium silicate board—5A exterior series

5A exterior series use high grade selected cement、 quartz sand and imported pulp. Pressed by 9000 tons machine and surface sanded treatment. As based board, well used on fluorocarbon paint、 stone paint、 granite paint and so on.

### Physical data

Material: cement、 quartz sand、 pulp and others

Fireproof rater: A1 class incombustible (GB8624-2012)

Density:  $> 1.4\text{g}/\text{cm}^3$

Water content ratio:  $\leq 10\%$

Swelling ratio:  $\leq 0.25\%$

Anti-bending strength:  $\geq 18\text{MPa}$

Impact strength:  $\geq 2.0\text{KJ}/\text{M}^2$

Frost resistance: No cracking and delamination after 25 cycles freezing and thawing

### Product characteristic

Durability and long service life

Excellent heat and sound insulation

High strength with 9000 tons pressing machine

Excellent water-proof, damp-proof performance

Excellent fire-proof performance, A1 class incombustible

High temperature、 high pressure autoclaved for 24 hours

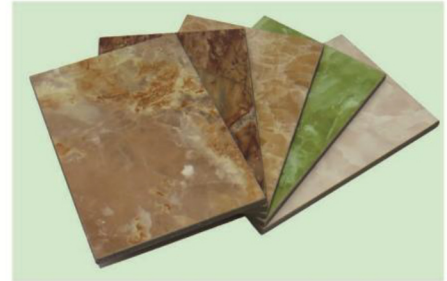
### Size

Thickness(mm)	Length x width (mm)	Surface	Edge
6mm	2440x1220mm 2400x1200mm 3000x1220mm 3000x1200mm	80# sanding 120# sanding	Square edge
8mm			
9mm			
10mm			
12mm			
>12mm			



## Recommend application—5A exterior series

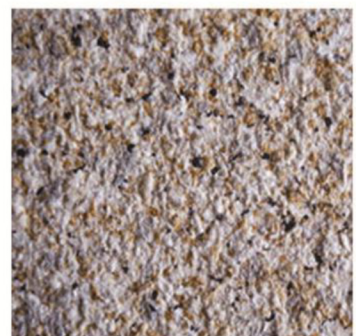
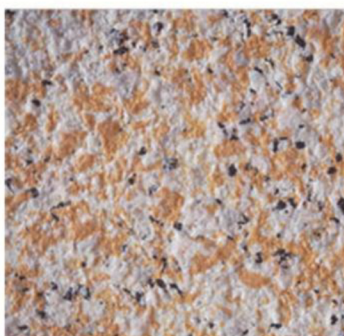
### Fluorocarbon paint based board



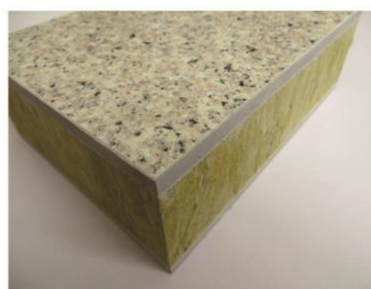
### Stone paint based board



### Granite paint based board



### Decorative insulation board



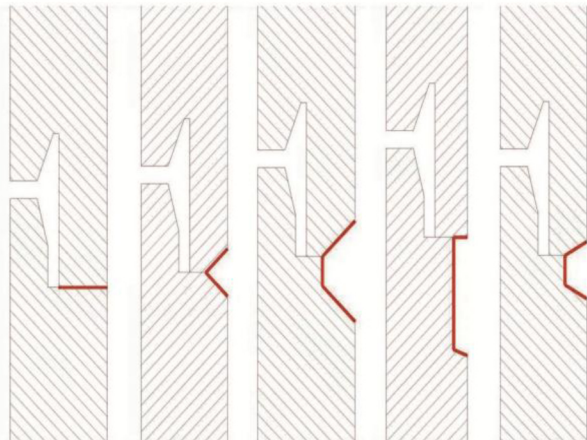
## Quick Installation Exterior Wall Panel System

This system is a set of fiber cement veneer dry construction technology independently developed by our company. It generally adopts horizontal installation and stacking installation from bottom to top. This installation method has two outstanding advantages: one is easy to install, not affected by the height of the storey or the total height of the building, and the other is structural waterproofing.

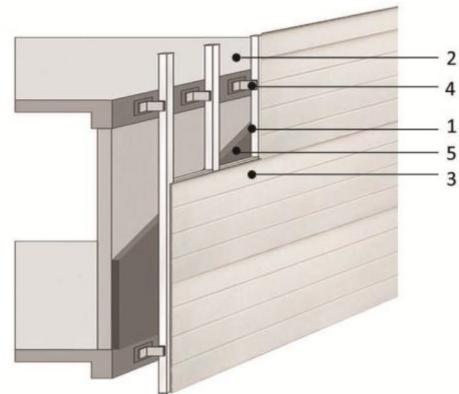
### Size & specification

Thickness	Length x width (mm)	Surface	Edge
12mm	2440x400mm 3000x400mm	120mesh sanding	Milling
15mm			
16mm			
Customized			

### Decorative slot style



### Exterior wall cladding system drawing



- 1. keel
- 2. structure
- 3. Lutai board
- 4. support
- 5. heat insulation material



# Wood Grain Fiber Cement Cladding

Wood grain fiber cement cladding adopts the high quality quartz sand, silicate, natural fiber, and a variety of selected mineral. With high temperature and high pressure. The product don't have any radioactivity and harmful elements. Belongs to new, green and environmental material. The surface with the typical natural cedar wood grain, appearance is natural and beautiful. Also can prevent the attack of white ant and sawteeth animals. Because of the lower cost and excellent properties, it is accepted by the foreign and domestic customers, also the best choice of all kinds of construction. When choose the coating material, we recommend environmental water-based paint. For example: water-based pure acrylic coating and so on.



## Size & specification

Thickness	Length x width (mm)	Surface	Edge
6mm	3000*1220mm	Wood grain	Square edge
8mm	200*3000mm		Edge milling
Customized	190*3000mm		

## Products characteristics

- 1,Light weight, structural earthquake-resistant
- 2,Heat insulation
- 3,Fire-proof for 4 hours , class-A1 incombustibility
- 4,High strength, anti-bending strength more than 12MPA
- 5,Well decoration effect, comfortable living function
- 6,Green, environmental material
- 7,Fast and simple construction, high efficiency, lower cost
- 8,Durability,flexibility and creativity

## Recommend application

Exterior wall of Villa, apartment, office building, work shop, school and so on  
Old building renovation, interior decoration

## Project Case of Wood Grain Cladding





## Wood Grain Fiber Cement Cladding Installation Solution

Generally, We use steel keel (as shown in Picture 1) or wood keel (as shown in Picture 2) to fix and support external wall wood grain siding cement board.

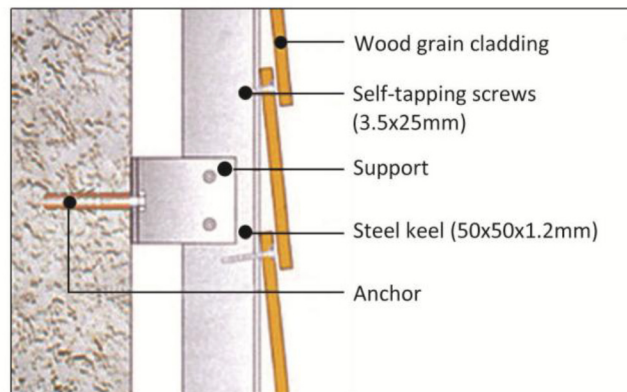
If the wall is very flat, the wood grain siding board can be directly fixed on the wall, such as a very flat brick wall, the wall after leveling with mortar. (as shown in Picture 3)

The wood grain fiber cement cladding can be fixed on the wooden keel or steel keel by self-tapping screws.

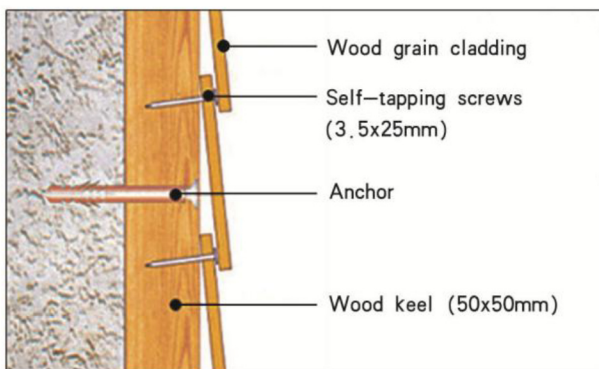
The skeleton is fixed to the structural wall by anchors.

The section width of the cladding keel should not be less than 50mm, and the center distance between the keels should not be bigger than 600mm.

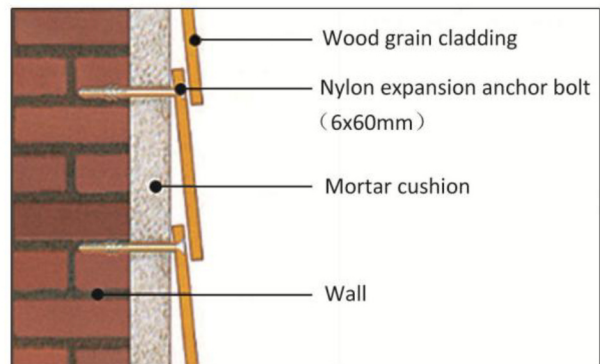
Each board spans at least three keels. If the board is supported by only two keels, the distance between the two keels cannot be bigger than 400mm.



Picture 1--Steel keel structure



Picture 2--Wood keel structure



Picture 3---Fixed directly to the wall

## Colorful Fiber Cement Board (PFB board)

Colorful fiber cement board is a new green & environmental material introduced from Korea obedience to the city building style. It improved the natural mode of China city building. It is produced by high temperature & high pressure used in interior and exterior wall decoration. Easy for construction, save time and save the cost. Also keep the natural texture and color.



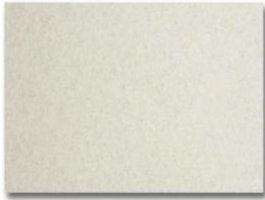
### Products characteristics

- 1, Natural and elegant, well effect decoration
- 2, Fast and simple construction, high efficiency, lower cost, directly install with nails like gypsum board and hipboard
- 3, Stable maintenance, long time use, more than 50 years age
- 4, High strength, anti-bending strength more than 12MPA, suitable for crowded place
- 5, Fire-proof for 4 hours , class-A1 incombustibility

### Product series

Concrete color: white, light gray, dark gray.

Multicolor: red, green, yellow, brown, black



white



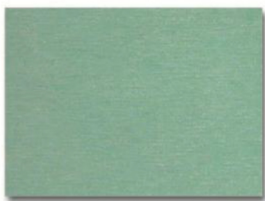
light gray



dark gray



red



green



yellow



brown



black

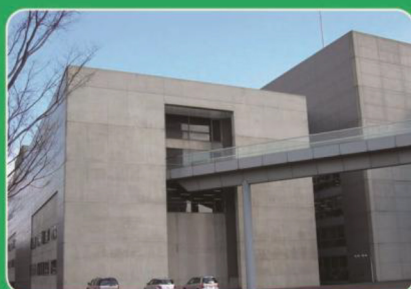
### Size & specification

Thickness	Length x width (mm)	Surface	Edge
6mm	2440x1220mm 2400x1200mm Customized	Waterproof Treatment Non Waterproof	Square
8mm			
9mm			
10mm			
12mm			

### Recommend application

Exterior wall: hotel, stadium, school, house, office, supermarket, store, villa, and apartment.

Interior wall: subway, office, meeting room, tunnel, market, hotel, washing room, passageway  
& large spots



## Exterior wall installation

Construction main points:

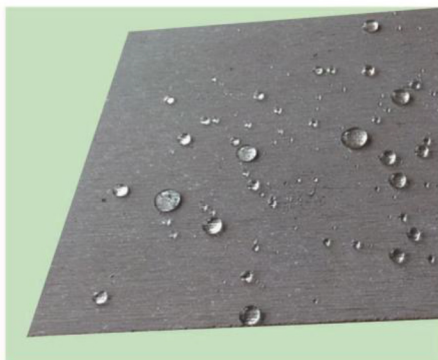
Mostly use the dry-joint process, the surface should be treated with water-proof coating, like clear varnish or clear resin coating



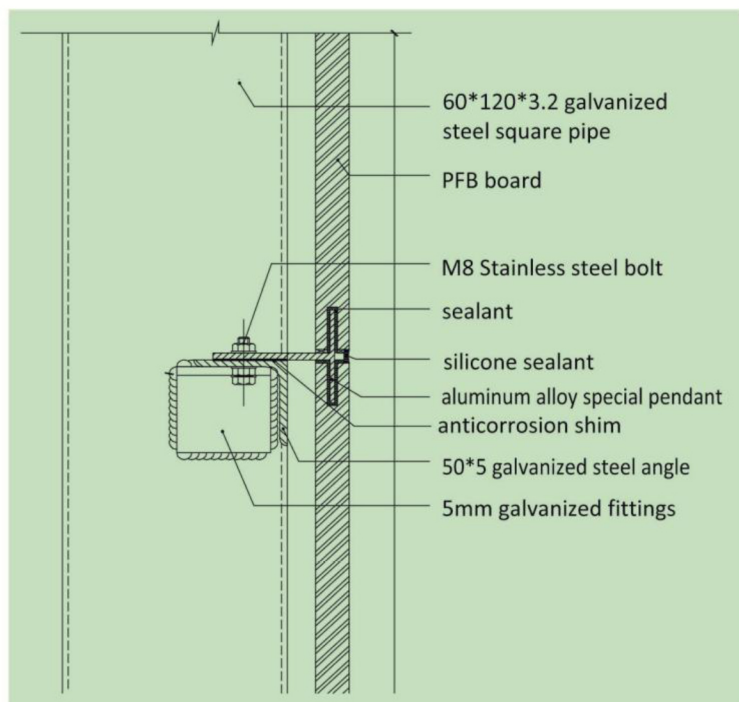
exterior wall works



Exterior wall photo



Water-proof drawing



## Interior wall installation

### Construction main points:

According to the spot and design, PFB board can be cut with toothless saw in site or offer the finished products edged 45°. Directly pasted if the wall is flat. If not , pls used the wood board as base to paste. And the fasten with nail (photo 2).Also level with wood keel and then fasten with nail ( photo 3).



cut in site



paste in site



Fasten with nail



construction site



# Interior Wall Decorative Fiber Cement Board

Interior wall decorative fiber cement board is 100% Non asbestos. After surface treatment, fluorocarbon coating and other fine deep processing, it can be directly installed and used without surface treatment again.

## Size and specification

Item	Length (mm)	Width (mm)	Thickness (mm)
Standard	2440mm	1220	6、8、10、12
Non standard	2400-3000mm	600-1220mm	6、8、10、12
Special	Customization		

## Product Performance

Base fiber cement board

Item	Test Result	Test Method	
Density, g/cm <sup>3</sup>	≥1.4	JC/T 412-2018	
Water Absorption, %	≤28%		
Anti Bending Strength, MPA	≥16		
Impact Strength KJ/M <sup>2</sup>	≥2.2		
Thermal Shrinkage, %	≤0.5		
Impermeability	After 24 hours, No water drop on the reverse side		
Freezing Resistance	25 times freeze thaw recycling test	GB/T8624-2012	
Combustion Performance	A1 Grade		
Radioactivity	Internal (IRa)	≤1.0	GB 6566-2010
	External (Ir)	≤1.3	

## Coating Performance

Item	Test Result	Test Method
Gloss deviation (60°)	≤10	Q/LTCYH001-2018
Delimitation Experiment, level	≤1	
Pencil Hardness	≥2H	
Water Resistance, 168H	Pass	
Acid Resistance, 168H	Pass	
Humidity Resistance, 1000H	Pass	
Pollution Resistance	Pass	
Wash Ability, times	≥10000	
Butanone Rubbing Resistance, times	≥100	
Alcohol Rubbing Resistance, times	≥100	

Pattern Type

Wood Grain Series



Stone Grain Series



Wall Paper Series



Single color Series



Product Application



School



Super Market



Office



Restaurant Entertainment



Hotel



Library





B & B



Public Washroom



Prefabricated Building



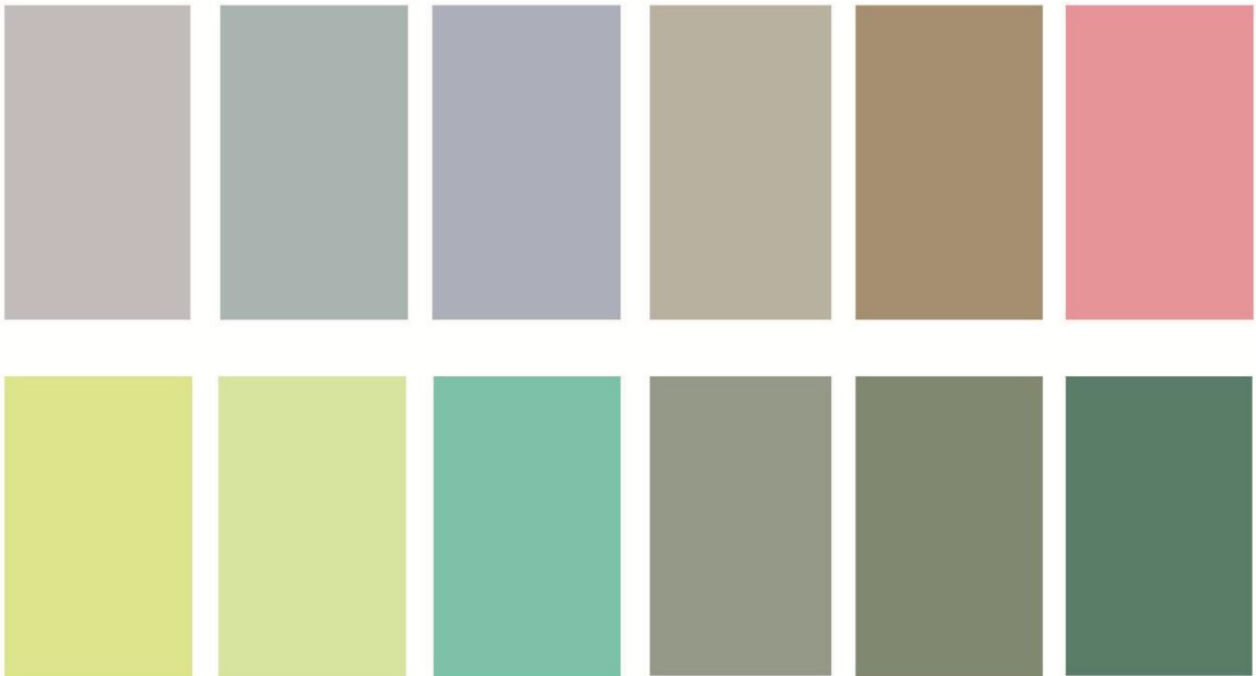
Prefabricated Building



## Medical Clean Fiber Cement Board

Medical clean board is based on 100% Non asbestos fiber cement board. After surface treatment、 fluorocarbon coating、 antibacterial coating and other fine deep processing. It can meet the standard requirements of building decoration board in medical clean area. A kind of multi-functional hospital wall, ceiling decoration board.

### Common Color



### Common Size

Wall: 1220 x (1200-3000) x 6mm

Ceiling : 1200 x 600 x 6mm, 1200 x 1200 x 6mm

### Antibacterial Properties

Item	Antibacterial Rate	Test Method
Candida Albicans	>99%	JISZ2801
Escherichia Coli	>99%	
Staphylococcus Aureus	>99%	
Klebsiella Pneumoniae	>99%	
Aeruginosa	>99%	

## Application Scope

Interior decoration of hospital waiting hall, corridor, nurse station, laboratory, pharmacy, operating room, ICU, NICU, CCU room etc.





# Tunnel Decorative Fiber Cement Board

Tunnel decorative fiber cement board is 100% Non asbestos. After surface treatment, fluorocarbon coating and other fine deep processing, it can be directly installed and used without surface treatment again.

## Common size

600 x 2400 x (8-12) mm

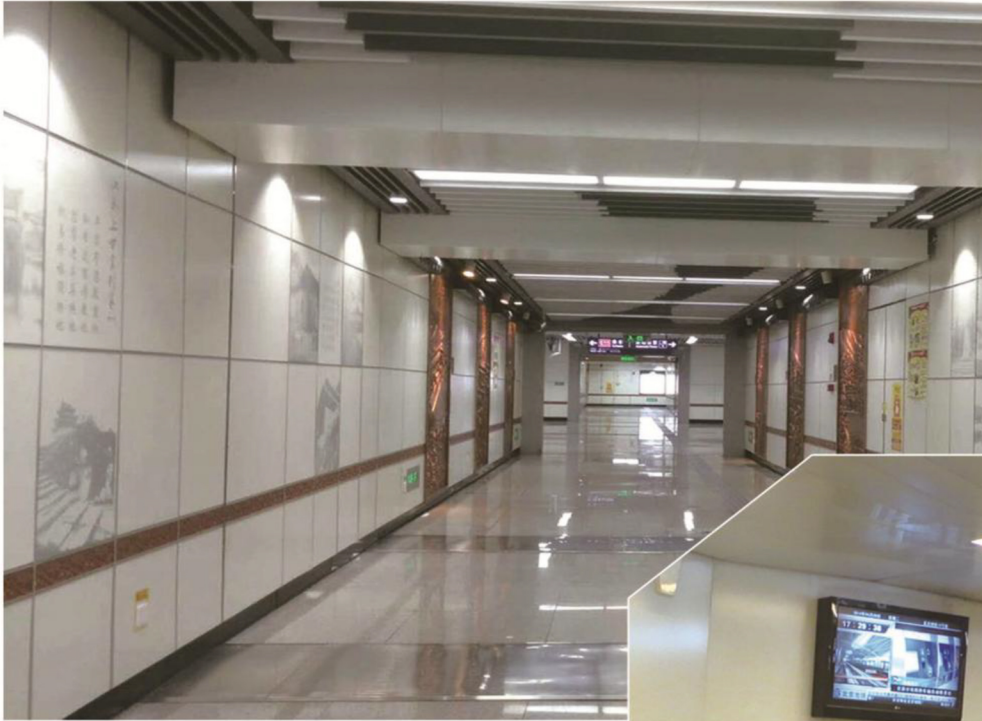
1200 x 2400 x (8-12) mm

1220 x 2440 x (8-12) mm

## Application Scope

Tunnel decoration, subway channel decoration





## Anti-sagging Suspended Ceiling – Figured Ceiling Series

Size

595×595×4 ~ 12mm

600×600×4 ~ 12mm

603×603×4 ~ 12mm



LT-101



LT-102

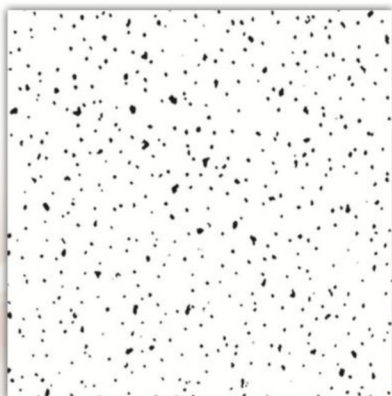
## Printing ceiling series

Size

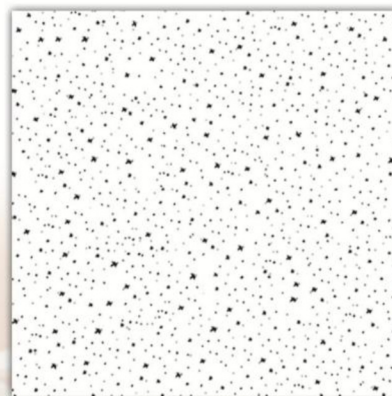
595×595×4 ~ 12mm

600×600×4 ~ 12mm

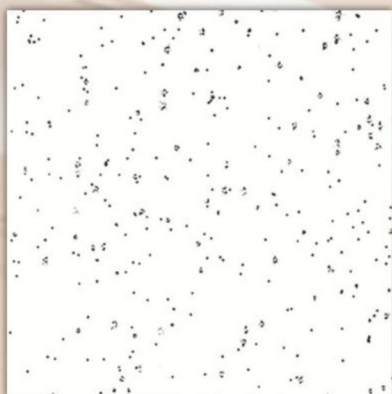
603×603×4 ~ 12mm



LT-301



LT-302



LT-303

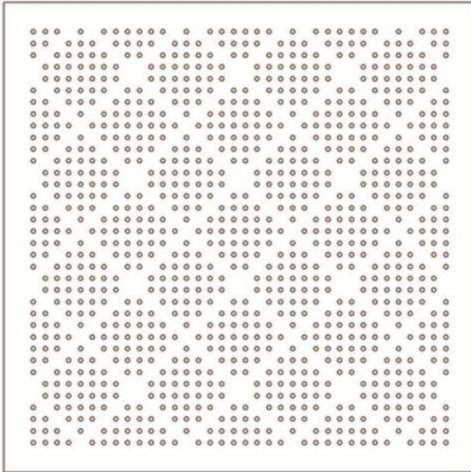


LT-304

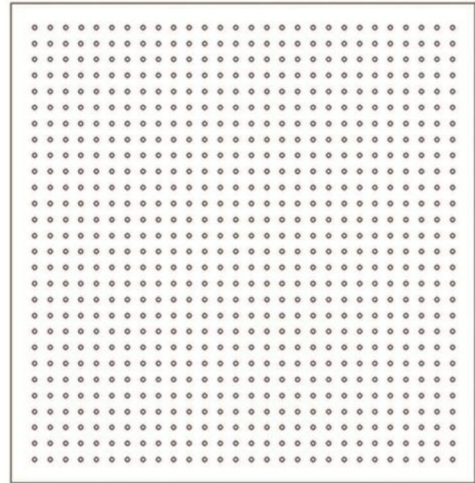
# Acoustic ceiling series

## Size

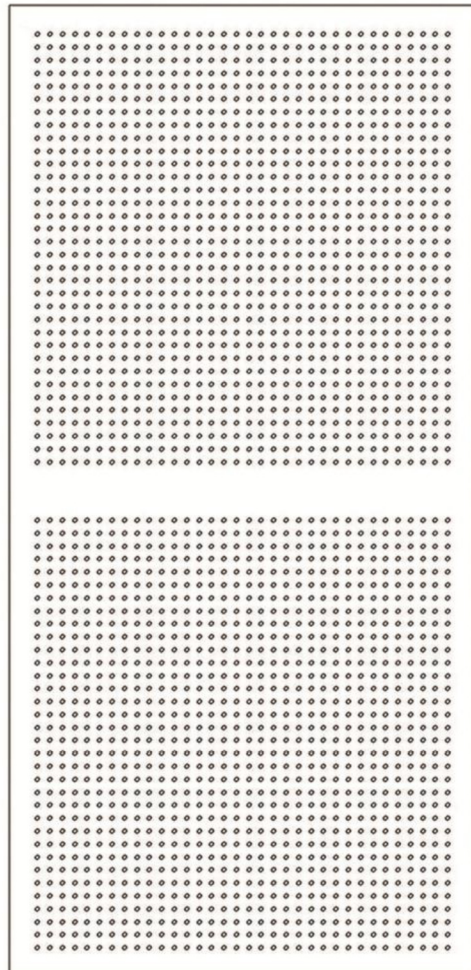
600x600x4-12mm, 600x1200x4-12mm, 1220x2440x4-12mm



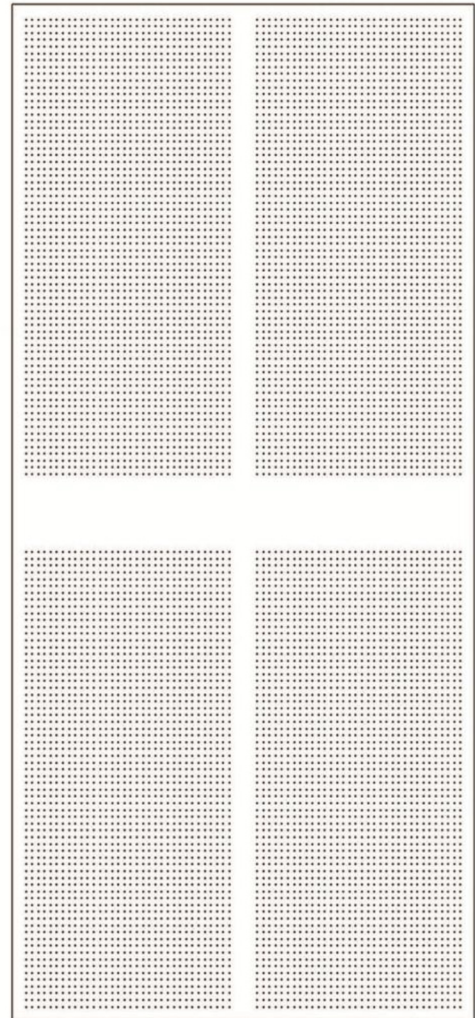
Product No: 1  
 size: 600x600  
 hole diameter: 6mm  
 hole spacing: 15mm  
 Edge distance: 32mm  
 hole count: 1024  
 perforated rate: 8.04%  
 processing thickness :≤6mm



Product No: 2  
 size: 600x600  
 hole diameter: 6mm  
 hole spacing: 22mm  
 Edge distance: 27.5mm  
 hole count: 784  
 perforated rate: 6.15%  
 processing thickness :≤7.5mm



Product No: 3  
 size: 600x1200  
 hole diameter: 6mm  
 hole spacing: 16mm  
 Edge distance: 33mm  
 hole count: 2312  
 perforated rate: 9.07%  
 processing thickness :≤7.5mm



Product No: 4  
 size: 1200x2400  
 hole diameter: 6mm  
 hole spacing: 16mm  
 Edge distance: 33mm  
 hole count: 9248  
 perforated rate: 9.07%  
 processing thickness :≤7.5mm

## Project examples



The Bird' s Nest Beijing



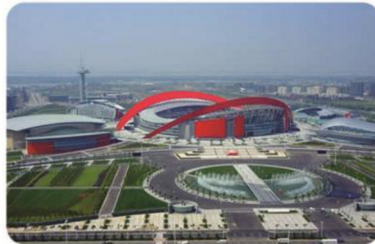
Tianjin University of Technology



Citibank Shanghai



Olympic Sports Center Jinan



Olympic Sports Center Nanjing



1st People's Hospital Chengdu



People' s Hospital Zhengzhou



Furama Hotel Dalian



Harbin University of Science and Technology



The Union Pearl Shijiazhuang



Sino Union International Building



People Building Xi'an



Dabanshan Tunnel



Yangtze River Tunnel Wuhan



Subsidiary Hospital Jinan Medical College

## Enterprise overview

### PRODUCTION PROCESS

