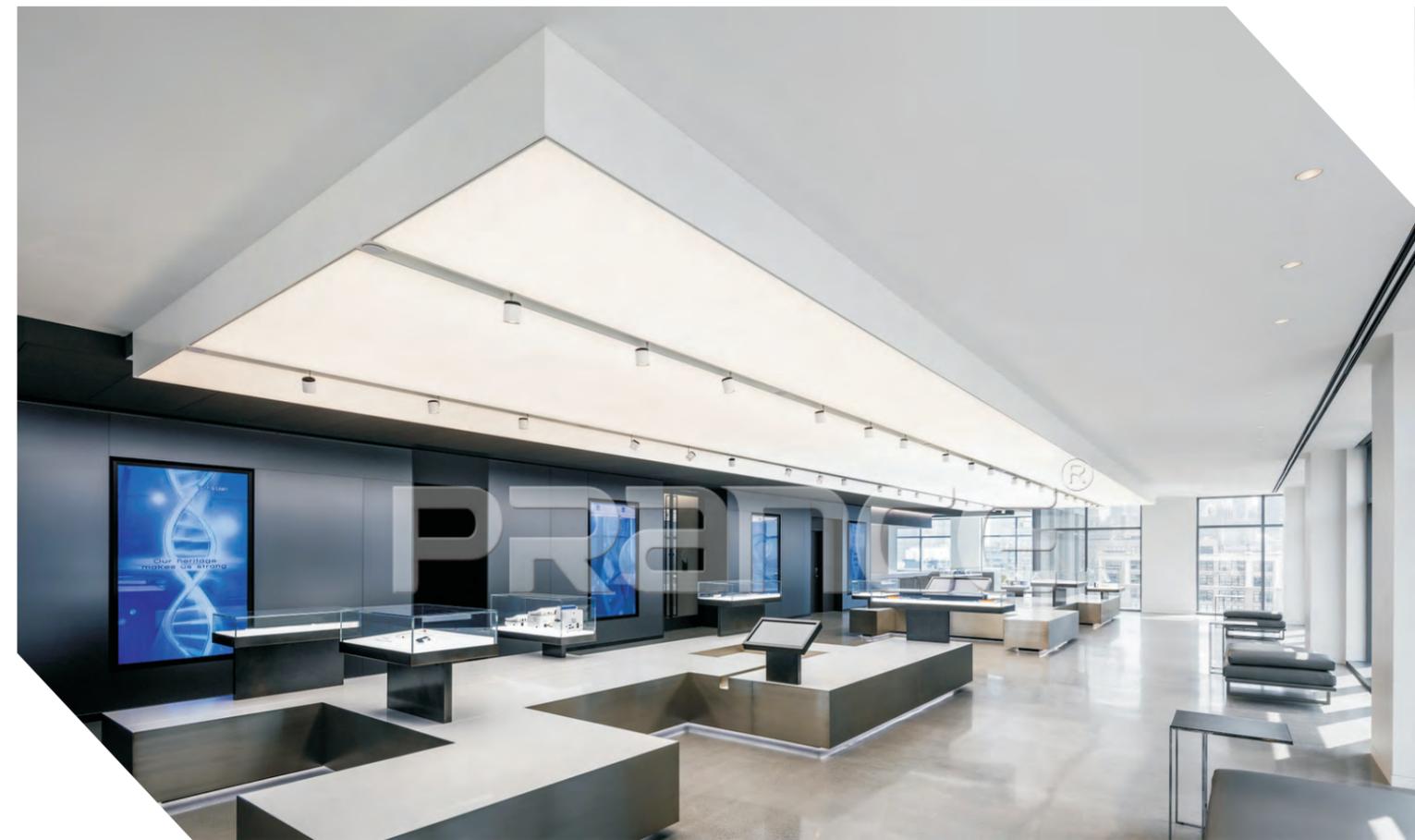


PRANCE[®]
柏尔斯



PRANCE[®]
柏尔斯建材有限公司
PRANCE BUILDING MATERIAL CO.,LTD.

生产中心：佛山市三水区白坭镇“国家火炬计划佛山电子电器产业基地”南区169号
No 169, South Area, Base of Electrical and Electronic Industry (National Torch Program),
BaiNi Town, SanShui Area, Foshan City, Guangdong Province

营销中心：佛山市禅城区季华六路九鼎国际金融中心1区2座1701-1705室
Office Add: Room 1701, 17/F, Tower 2, District 1, Worldwide Complex, Jihua 6th Road,
Chancheng Foshan, Guangdong, China.

电话 Tel: +86-757-83138155 传真 Fax: +86-757-83139722

邮箱 E-Mail: info@prancebuilding.com

网址 Website: http://www.prancebuilding.com



CALCIUM SILICATE BOARD

硅酸钙板

ABOUT PRANCE®

PRANCE® is specialized in the production and marketing of building material for 20 years.

PRANCE®



PRANCE® has a complete and scientific management system on product quality control to enforce the ISO9001:2000 standard. As products meet the EN CE certification, our products have got the recognition and support from our customers from China and internationally.

Factory Data

Established	1996
Project Area	Europe, Middle East, Aisa, Australia
Capacity	Design, Products, Installation
Employee	300
Factory Area	40000m²

We have our own research and development and design team

SERVICE PROCESS



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WELCOME TO PRANCE[®]

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FIBER CEMENT BOARD

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Quality Control





PROFESSIONAL AUTHORITY CERTIFICATION —SAFER AND MORE SECURE

PRANCE products have passed the certification of ISO9001 quality management system
PRANCE products are produced by all advanced technology equipments, through a numerous standard testing

01



■ Since the last century, under the use of hatschek technology, fiber cement building product has extended its range, from fiber cement roof tile to fiber cement board and fiber reinforced calcium silicate board. Nowadays, facing people's higher requirements of products being environmental friendly, light weighted, convenience and high working efficiency, PRANCE Building Materials devotes ourselves to make our product with higher quality, such as low density & high strength non-asbestos calcium silicate board and non-asbestos fiber reinforced exterior siding board, through our developed hatschek technology.

■ Foshan PRANCE Building Material Co.,Ltd. is the Pearl River Delta branches and production base of PRANCE Group, whose main product is fiber cement product. Our company has introduced advanced fiber cement production technology from Japan, Thailand and etc., owning the most advanced automated hatschek production line and automated spray production line. Our products' good quality is supported by our powerful technical strength, integrated management system, integrated technical criterion, integrated testing procedure, and advanced testing equipment. Hatschek process and surface treatment technology from Europe assure that our products completely comply the standard quality in the global market. All of our products conform to the national standards and own high reputation.

02

■ Foshan PRANCE Building Material Co.,Ltd. has successfully created excellent environmentally friendly series of products that are applied to interior and exterior wall, roof, floor, etc., including calcium silicate board, fiber cement siding board, decorative exterior wall panel, fiber cement board and colored roof tile, under the famous brand PRANCE. Our belief is "Excellent Quality, Trust Comes First, Customer Orientation, and Serve the Public". We are always welcoming friends from all over the world to come visit our factory for commercial cooperation. We are willing to work with elites in all fields, to develop together. We believe that our products can create a beautiful and harmonious environment for you!

Recommended Applications:

PRANCE calcium silicate board is for indoor partition and ceiling. Moisture proof and fire proof performances are suitable in the wet area building for both civil and industrial application. It is widely used in office building, hotel, hospital, factory, school, villa, coffee shop and other kinds of art building.

- Light weight
- All kinds of panels styles
- Sound absorption ceiling
- Sound insulation partition

Production:

The raw material of PRANCE calcium silicate board is high-purity quartz flour, high-graded Portland cement, high-purity slaked lime, plant fiber and other mineral additive substances. After agitating and mixing calcium and silicate in a ratio, we then make the material into a wet sheet and through 24 hours of high temperature autoclave by advanced technology to make the calcium silicate react to Tobermorite to get the final product. From opening the raw material to processing semi-finished product, every procedure is under strict control to guarantee our high quality calcium silicate board.

Standard:

PRANCE calcium silicate board meets the national standard of JC/T 564-2008. Our company has a strict interior product quality control to examine our product standard. PRANCE calcium silicate board performs water absorption, wet swelling rate and contraction percentage standards are higher than that on the JC/T 564-2008.



Features

■ **Environment Friendly**

PRANCE calcium silicate board is the 100% non-asbestos product. Our board will not produce any toxic gas and radiation when using it.

■ **Fire Proof**

PRANCE calcium silicate board is fire-resistant material. When a flame situation happens, the fire resistant performance of outer wall is very important to prevent the spread of fire. PRANCE calcium silicate board has an excellent fire resistance character. In addition, it will not cause crack and stratification after fire.

■ **Anti-corrosion**

PRANCE calcium silicate board contains no growth condition for fungus, and it will not mildew in any circumstance.

■ **Resistant To Insect And Termite**

Under 11 pa steam curing, the PRANCE calcium silicate board is hardened. Its own structural property determines that insect and termite will not survive in the board.

■ **Light Weight&high Strength**

Calcium silicate board can be installed as ceilings or wall partitions. It has the superiority of light weight and high strength.

■ **Easy Working**

The installation of calcium silicate board is easy and fast. It can be installed with ordinary wood working tool. The board is easy to be processed.

■ **Easy Decoration**

Various decorative processing can be made for the board surface, such as coating materials or other kinds of adhesive.

■ **Small Deformation Coefficient**

The component materials of PRANCE calcium silicate board are cement, quartz flour, natural xylem fiber and other additive minerals. Under high temperature autoclave, the calcium from the cement and the silicate from the quartz flour will react to form a new crystal "tobermorite". It will harden within 24 hours after molding, therefore the shape of board is steady and deformation coefficient is small.



SPECIFICATION:

Thickness(mm)	Width(mm)	Length(mm)
5.6.8.10.12.15	1220	2400,3000,3660
REMARK: we can also supply other specification according to the clients' s requirements		

TOLERANCE DIMENSION:

Item	Requirement	
Length(L)	< 1200	±3
	1200-2400	±4
	> 2400	±5
Width(B)	≤1200	±3
	>1200	±4
Thickness(e)	≤8	±0.3
	≥9	±0.5

TOLERANCE IN SHAPE:

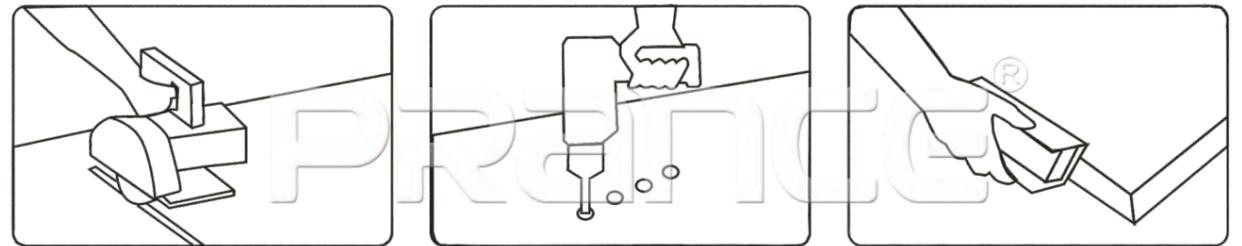
Item	Requirement
mm/m Edge straightness	≤2
mm/m Squareness	≤3
mm/m Squareness	≥3
%Thickness Uneven	≥6

PHYSICAL PROPERTIES:

Item	Unit	Requirement	
Density	g/cm ³	≥1.2	
Thermal conductivity	W/(m·k)	≤0.29	
Water absorption	%	≤40	
Water contain	%	≤10	
Moisture movement	%	≤0.25	
Non-combustibility	Gb8624 class A		
Bending strength	Oven dry		
	Cross	Mpa	≥1.2
	Parallel	Mpa	≥9

REMARK: please contact our technical if you need more technical index or product info.

PROCESSING



Transportation

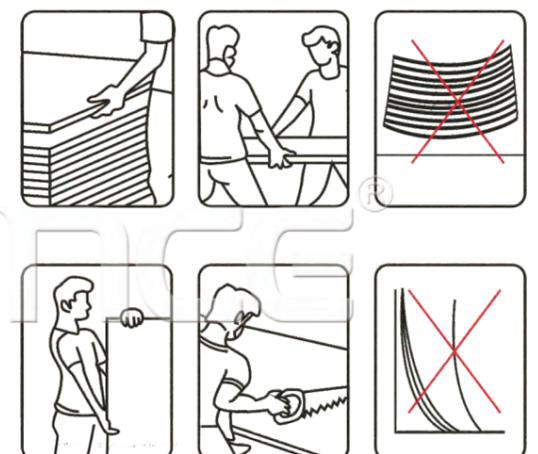
During delivery, the board should be piled up in the way of board-to-board It is suitable for ocean transportation, road transportation and indoor storage. The panels could not be stored outside or in the place near water. It must be stored in a smooth, no rain leaking, no dust and good ventilated warehouse. It should avoid getting moisture before used. Once it was affected with damp, it should be cleaned up right away and sent it to a good air flow area for drying up. Otherwise it could be destroyed.

Caution for transportation and store:

1. Carried by one man is prohibited, the edges and comers must be well protected.
2. Two workers are needed to lift the board together. They must separate their hands as much as possible and raise the longer edges of the board in vertical so as to prevent the board from being bent too much.
3. Once the thickness of the board is less than 8mm,please carry two boards each time.

HANDLING

4. When storing, the bottom should be kept flat, the height of each stack should be not more than 800mm,and the total amount of stack should be not more than three.
5. The calcium silicate board can not be erectly scattered, on the contrary, the board should be piled in order and according to their specification and type.
6. A dry depositary without water leakage and sink store must be chosen to ensure outstanding capabilities of PRANCE calcium silicate board.



Lab environmental condition:23±2°C,50±5%RH

Test results:

1.Density

Test item	Test method	Test result
Density(kg/m ³)	ASTM C1185-08(R2012)	1.39x10 ³
REMARK	Specimen dimensions:305mmx152mmx12mm,3pcs	

2.Flexural strength(Wet conditioning)

Test item	Test method	Test result
Flexural strength(MPa)	ASTM C1185-08(R2012)	Ave.:10.5 Min.:10.0
Remark	Specimen dimensions:305mmx152mmx12mm,5pcs in each direction. Test span:254mm Test speed:2mm/min	

3.Water absorption

Test item	Test method	Test result
Water absorption(%)	ASTM C1185-08(R2012)	30.7
REMARK	Specimen dimensions:100mmx100mmx12mm,5pcs	

4.Moisture content

Test item	Test method	Test result
Moisture content(%)	ASTM C1185-08(R2012)	7.3
REMARK	Specimen dimensions:305mmx152mmx12mm,1pc.	

5.Freeze-thaw

Test item	Test method	Test result
Freeze-thaw	ASTM C1185-08(R2012)	R=0.93
REMARK	Specimen dimensions:305mmx152mmx12mm,5pc in each direction Test span:254mm Test speed:2mm/min Total number of freeze/thaw cycles:4 cycles	

6.BS 476-4:1970+AMD2483&4390

I. Test conducted

This test was performed in accordance with BS 476 Part 4:1970 Incorporating AMD 2483 and AMD 4390

Fire tests on building materials and structures-Part 4:Non-combustibility test for materials.

II. Sample Details

Description	NON-ASBESTOS FIBER CEMENT
Color	Grey
Thickness	About 11.5mm
Specimen size	40mmx40mmx7mm

Conditioning

Prior to testing,the specimens were dried in a ventilated oven at 60±5°C for not less than 24h then cooled to ambient temperature in a desiccator containing anhydrous calcium chloride.

III. Test Results

Items	1st	2nd	3rd	
Initial temperature of the furnace(°C)	749.4	750.1	749.7	
The temperature reading from the furnace thermocouple during test.	The maximum temperature(°C)	790.7	790.2	790.1
	The maximum temperature rise(°C)	41.3	40.1	40.4
The temperature reading from the specimen center thermocouple during test	The maximum temperature(°C)	793.0	792.0	792.6
	The maximum temperature rise(°C)	43.6	41.9	42.9
Duration of sustained flaming inside the furnace(seconds)	0	0	0	

Requirements:

The material shall be deemed non-combustible if,during the test,non of the three specimens either:

1. Causes the temperature reading from either of the two thermocouples to rise by 50 degC or more above the initial furnace temperature,or
 2. Is observed to flame continuously for 10s or more inside the furnace.
- Otherwise,the material shall be deemed combustible.

Cutting

Board can be cut manually with common flaky saws or handsaws. If a large amount of boards are cut at the working site, electric circular saws are suggested. The cutting saw blade is made of carbonized tungsten alloy. Moreover, cutting round and arc-shaped boards can be done with electric jig saws.



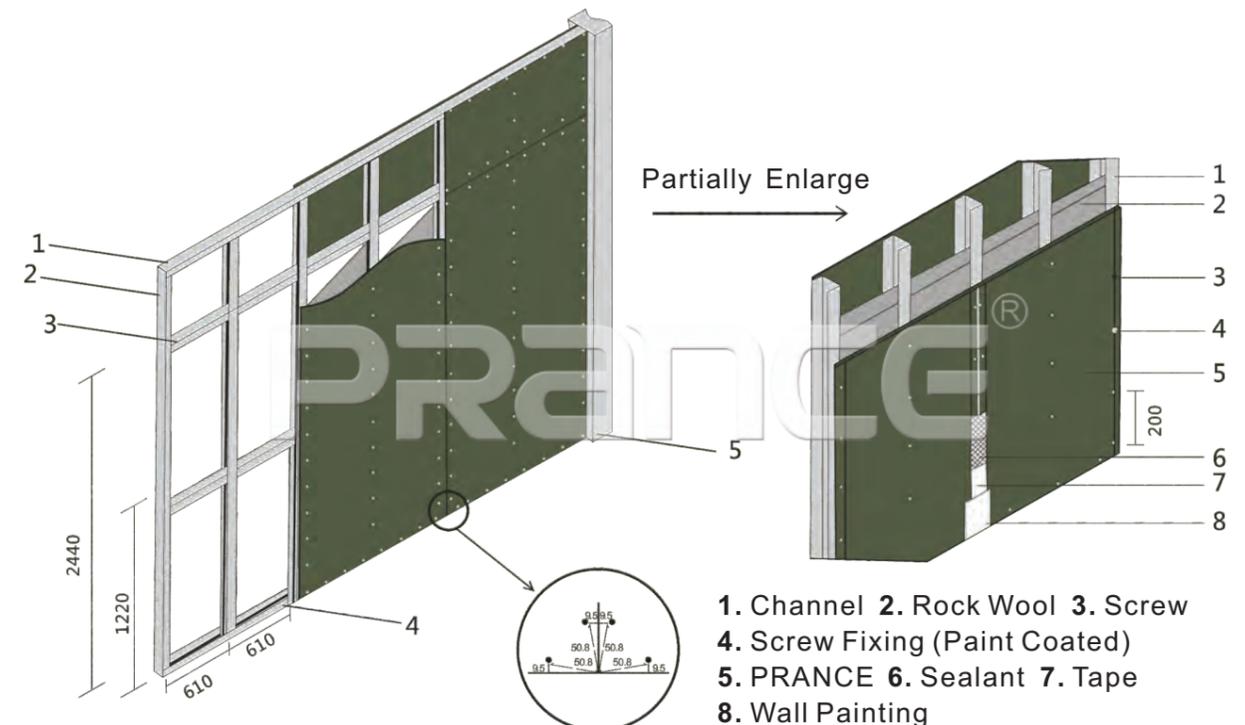
Electric drills or tapers can be used for circular or rectangular holes as needed on the board surface.

Breezy spot is suggested as the site for cutting. In addition, cutters with the function of dust collection should be used, workers should wear respirators during processing, then the environment and health of the employees can be guaranteed.



Guide of installation and application for partition:

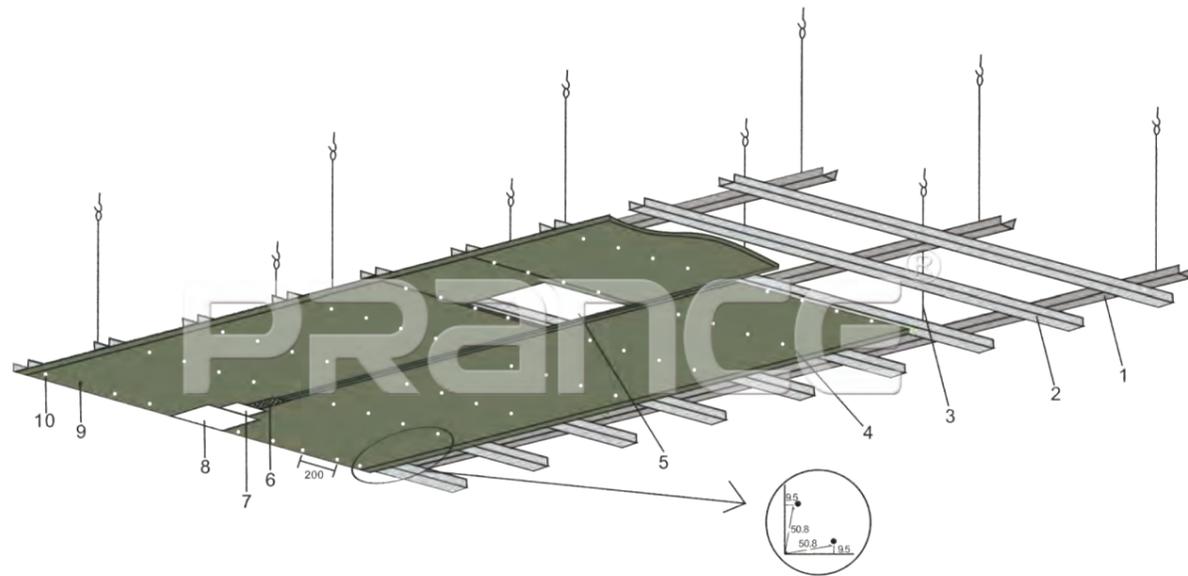
1. Generally, PRANCE calcium silicate board which used for partition is installed in vertical. That is to say, the longer edge should be installed on the C Profile.
2. The panels are supposed to be approached naturally when they are joined and forcible press should be avoided.
3. We have to pay special attention to the arrangement of panels near the windows and doors. The space of the panels should not be horizontal with the profile on frame of doors or windows in order to avoid the crack while shaking caused by opening or closing doors and windows.
4. The two longer edges of each panel are beveled edge. If the partition is higher than 2440mm, the shorter edge should be jointed horizontally on the spot (the bevel edges should be about 25mm in width) to make better sealing.
5. Snapping lines and marking fixed points for the panels, afterwards making a hole in advance (1-2mm in diameter, slightly bigger than screw head, and 1-2mm in depth). The fixed point should be 40-55mm to the corner of the board and the space between the fixed points should be 250-300mm.
6. Before the panels are fixed, it should be holed in advance on both the board and the profile. The size of the hole should be 1mm smaller than the screw and tapping screw on diameter. As being installed, the board should be fixed from its center to edges, each screw should be enter into the board by 1mm. When fixing, please tight the panels and profile.



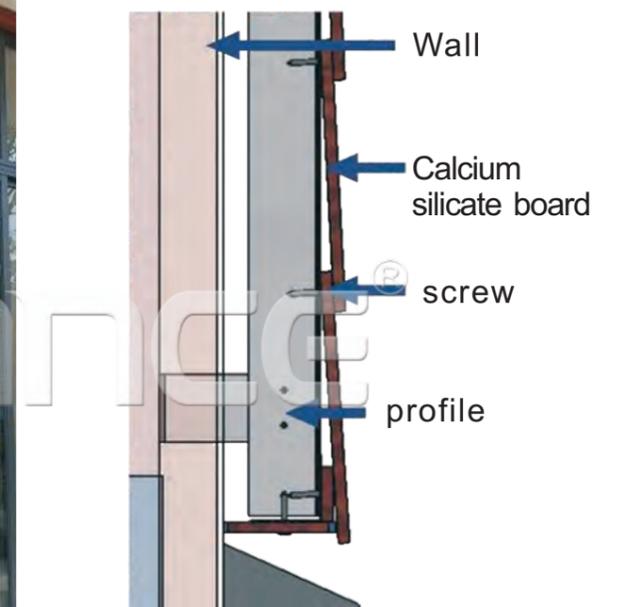
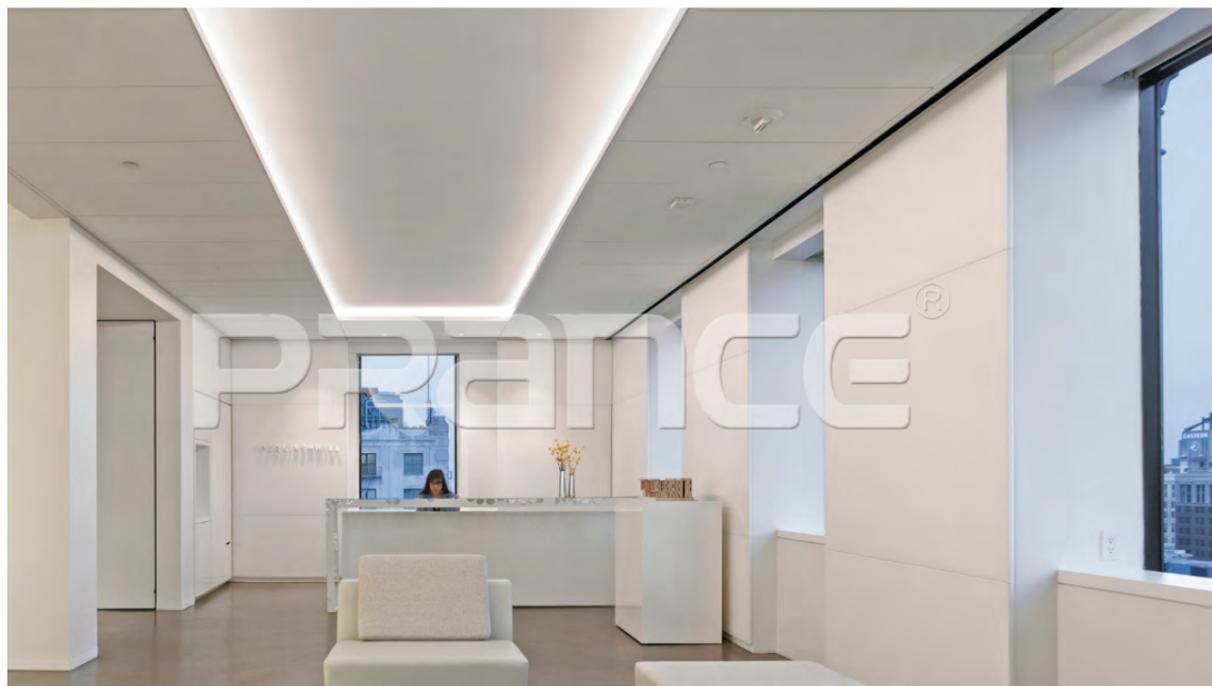
1. Channel
2. Rock Wool
3. Screw
4. Screw Fixing (Paint Coated)
5. PRANCE
6. Sealant
7. Tape
8. Wall Painting

Guide of profile installation for ceiling

1. First, we should draw the installation guideline to confirm the fixing position according to the draft and the indoor condition (the distance between the fixing points is $\leq 1222\text{mm}$).
2. Fixing the main profile on the bottom of the floor horizontally with hanging wire and hanger, the central distance between the main profiles is $\leq 1222\text{mm}$, while the space between the end of the profile and the partition should be 10mm.



Specification		Tolerance	Remark
Thickness(mm)	8	± 0.5	
Width(mm)	200	± 3	
Length(mm)	3000	± 5	
Coating	All-roundbottom paint+color paint+color paint(two+tone)+antiaging-varnish-application		Crylicacid paint for exterior
Color	Coffee,brown,white,grey and twotone		Customized according to requirements





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Recommended Applications:

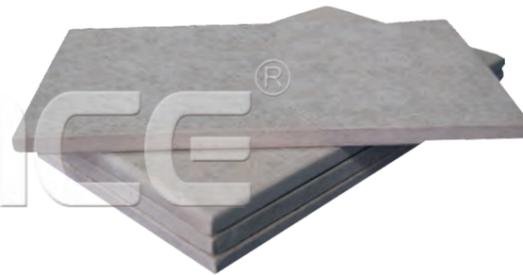
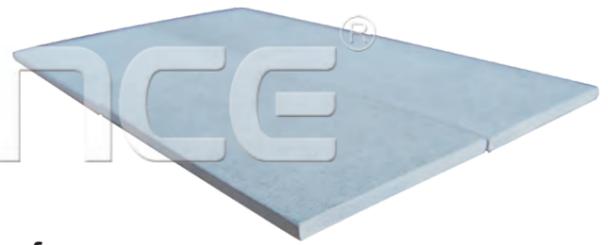
PRANCE calcium silicate board is for indoor partition and ceiling. Moisture proof and fire proof performances are suitable in the wet area building for both civil and industrial application. It is widely used in office building, hotel, hospital, factory, school, villa, coffee shop and other kinds of art building.

- Light weight
- Exterior wall cladding
- Interior (toilet) partition
- Sound absorption ceiling
- Curtain wall scale board
- Composite wall panel
- Outdoor billboard`
- Thermal baffle
- Clapboard of switch board and transformer

Production: PRANCE fiber cement board, composite of cellulose fiber, reinforced PP fiber and high grade Portland cement. After the process such as molding, pressurizing, steam curing, etc. A new kind of building and industrial board with good performance is produced by our factory with advanced

Standard:

PRANCE fiber cement board meets the national standard as JC/T 564-2008. Our company makes a strict interior product quality examine standard for it.



Features of PRANCE Boards:

■ **Fire Proof & Insulation**

Non-combustibility meets GB8624 Class A. The products will not ignite in a case of fire, and will not produce any toxic gas or smoke. It's a kind of perfect material to be used for insulation because of its low electrical conductivity.

■ **Waterproof And Moisture Proof**

It can keep the stability in the semi open air and hot environment. It won't be sinking or deformation.

■ **Anti-corrosion**

PRANCE Fiber Cement Board contains no growth condition for fungus, and it will not mildew in any circumstance.

■ **Resistant To Insect And Termite**

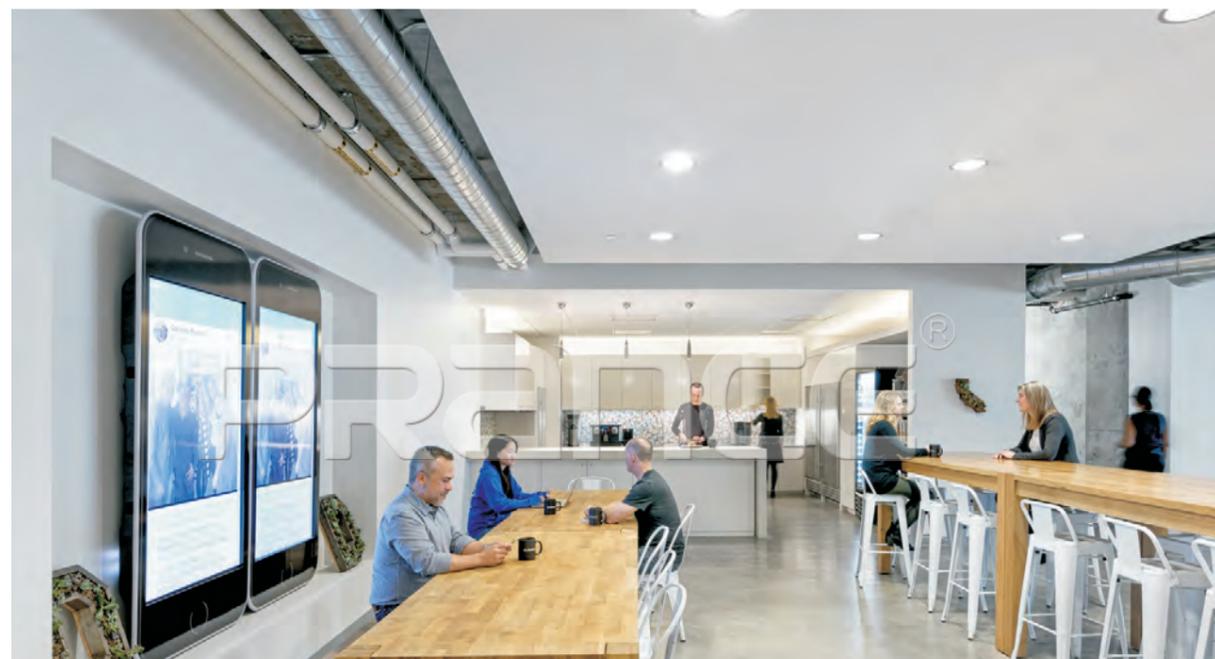
Under 11 pa steam curing, the PRANCE Fiber Cement Board is hardened. Its own structural property determines that insect and termite will not survive in the board.

■ **Thermal Insulation And Sound Insulation**

High density and good sound insulation lead to the low coefficient of heat conductivity and good heat-insulating property.

■ **Light Weight and High Strength**

Through 5000T pressure gives by the flatbed oil hydraulic press, the fiber cement board is not only high strength and light weight, but also low coefficient of deformation. It is fit for ceiling and floor slab.





■ Easy Working

The installation of board should be dry construction. Install the boards together with the keels which make the installation easy and fast. The further processing product also has the features of easy working and better performance.

■ Economical And Good Appearance

The combination of boards and keels reduces the project and decoration cost. The smooth surface makes the unity of color on the surface of the building.

■ Safety And Harmless

The technical indexes of the board come within the national Radiological Protection Standards for building materials. The actual test value is equal to the value of the lawn which is 20 meter far away from the buildings.



■ Long Use Life

It is acid and alkali-resistance, anti-corrosive, moisture proof and resistant to insect and termite. It will increase the strength and hardness as time passed as well which make it has long use life.

■ Workability And Good Performance Of Finishing At Twice

Cutting, drilling holes, carving, preboring, painting, plastering the ceramic tiles and paper hanging can be done according to the practical situation.

SPECIFICATION:

Thickness(mm)	Width(mm)	Length(mm)
5.6.8.10.12.15.30	1220	2440,3000,3660
REMARK: we can also supply other specification as the client* s: specially requirement		

TOLERANCE DIMENSION:

Item	Requirement	
Length(L)	< 1200	±3
	1220-2440	±4
	> 2400	±5
Width(B)	≤1220	±3
	> 1220	±4
Thickness(e)	≤8	±0.3
	≥9	±0.5

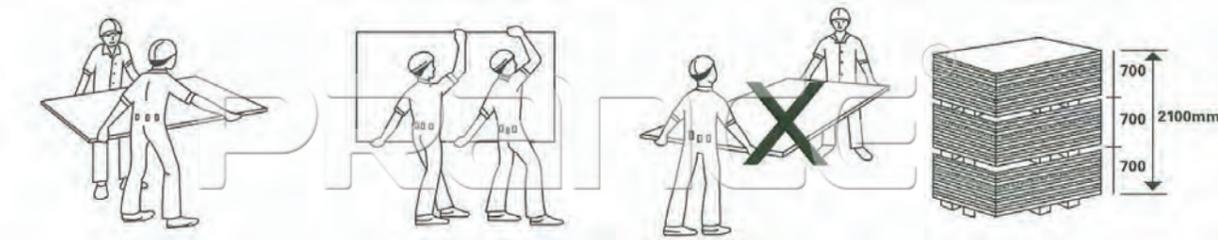
TOLERANCE IN SHAPE:

Item	Requirement
mm/m Edge straightness	≤2
mm/m Squareness	≤3
mm/m Squareness	≥3
%Thickness Uneven	≥6

PHYSICAL PROPERTIES:

Item	Unit	Requirement
Density	g/cm³	1.1≤D≤1.4
Non-conductivity	GB 8624-1997 Inflammability A Class A	
Moisture movement	%	≤0.25
Water impermeability	Water logging at the back of the board after 24 hours is permitted, but water drop is not allowed	
Bending strength	Oven dry	Mpa
	Saturation with water	Strength LevelⅢ
		≥10
		≥7

Transportation



When the factory delivers the boards, the boards should be piled up in the way of board-to-board. It is suitable for overseas transportation, road transportation and indoor storage.

The panels could not be stored outside or in the place near water. It must be stored in a smooth, no rain leaking, no dust and good ventilated warehouse. It should avoid getting moisture before used. Once it was affected with damp, it should be cleaned up right away and sent it to a good air flow area for drying up. Otherwise it could be destroyed.

Caution for transportation and store:

1. The boards cannot be collided during transportation, loading and discharging. The bottom of transport truck must be even. After loading, we should use some ways to fix the boards to avoid moving and colliding.
2. When being hoisted and loaded by forklift, the whole pallet boards must be piled in order to avoid the boards' edges being collided by wire rope or forklift.

3. When loading and discharging the boards by hands piece by piece, we should pay attention to the chip and sundries between the boards. If the chip and sundries cannot be cleaned up at once, the boards will be pressing crack or become deformed.



4. When moving the boards, we should carry the board two edges by two hands in upright way.
5. When being stored, the boards should be piled on the even ground or with pallet under the bottom. Small amount of boards in bulk cannot be piled beside the wall in upright way.
6. The boards should be stored in the inter warehouse. When being stored outside, the boards should be covered by tarpaulin.

Process Method

PRANCE fiber cement board has good processed property which can be incised, nailed, drilled according to the requirement of the project.

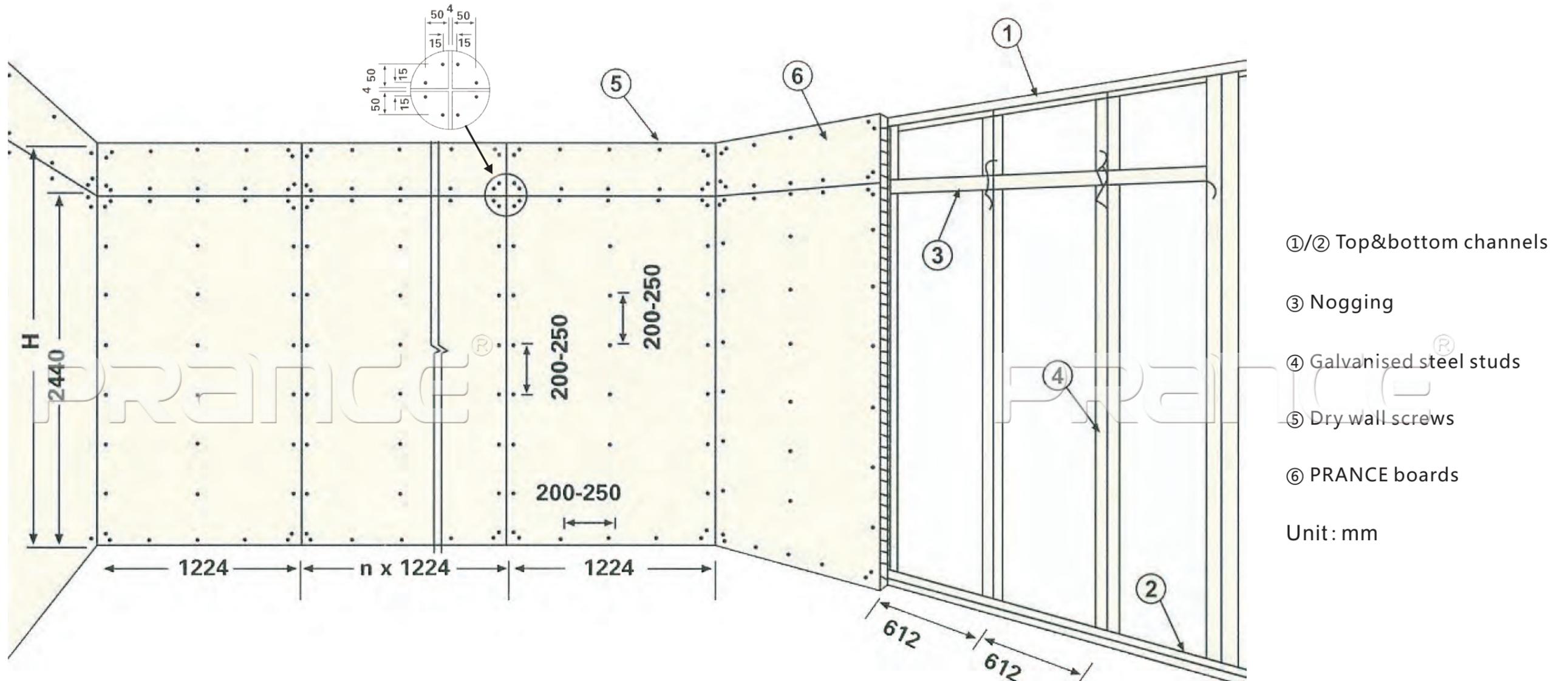
1. Nicking on the board according to the requirement, then to press & open it with straight and flat instrument.
2. Cutting the board with ceramic cutting machine.
3. Installing the board with automatic screwdriver.
4. Processing the diverse types with automatic knife.



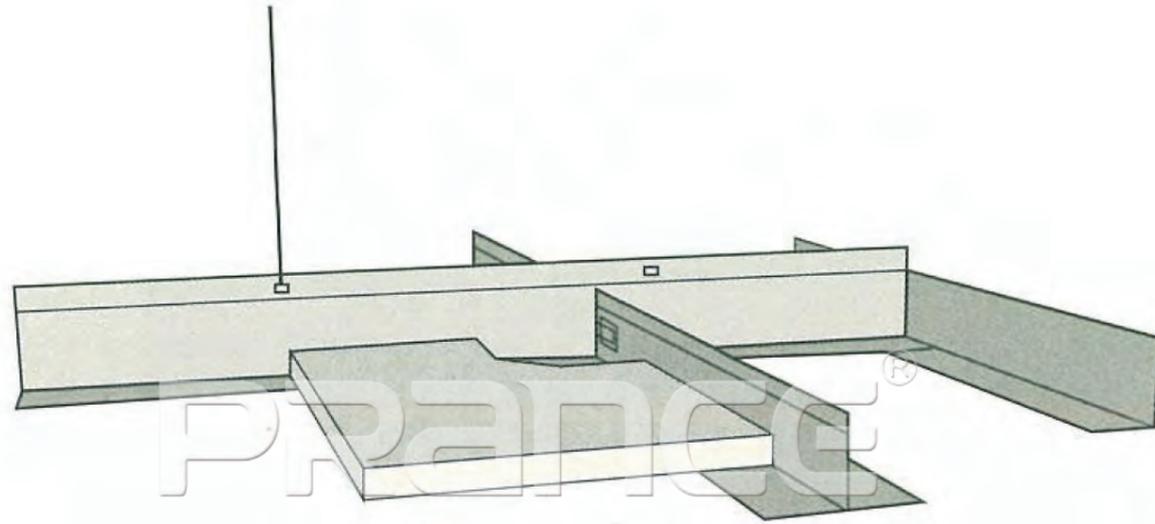
Construction Of Board

1. Using flat & firm framework to fix the board, and strictly prohibit the outstanding phenomenon and welded junction, welding ames, welding slag splashing for the fastening piece.
2. Foxing the board after finishing the complete framework for the project.
3. Fixing the complete size (1220 x 2440) of board should base on the rule that gradually fixing from middle to around or the inside force of board can't be released, thus cause bad effect.
4. Using tapping screws to fix the fiber cement board. The distance between tapping screws with hanging roof board is 200mm. The distance from the tapping screw to the middle of board is 300mm while 200 to the around side. The distance from middle of tapping screws to the edge of board, hanging roof board, wallboard is 13-15mm.

5. If the distance from the middle of tapping screws to the edge of board can't meet the requirement of 13-15mm under the special condition, you should add accessory, and the distance of tapping screws should less than 0.3mm from the board.
6. Painting promptly above the tapping screw in case the rust on it will badly effect the last process after finish fix the tapping screws.
7. You can scrape the line on the fixed wall based on the requirement when need to trepan. One hole of four corner should be trepanned in the square hole line in case of the square hole. The diameter of hole is 10mm. Then cut with scroll-saw or portable saw. You only need to trepan one hole in case of round hole. Then cut with the scroll-saw. Beveling & knife after finish cutting. The size of the hole must bigger than inside goods, and can't be putted inside forcibly to avoid the break on the board.



Guide Of Profile Installation For Floor

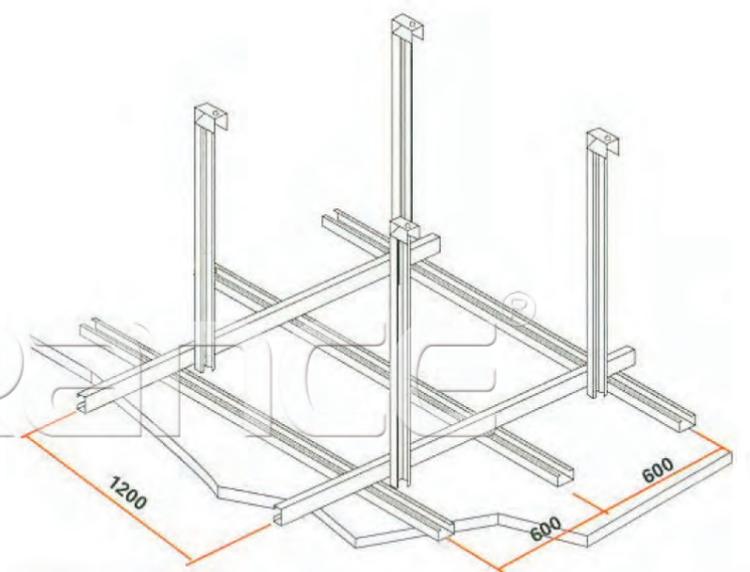


1. The weld of the beam must meet the standard as GB/T985-1988. The size is according to the requirements of the design drawing. The weld strength must meet the standard as GB-T5185-1985. The welded junction where touches fiber cement board must be well rub down before the board is laid.
2. To use the fiber cement board as the floor slab. The seam edge of each board must be laid on the same beam. And the seam should be filled with silicone adhesive or cement mortar.

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3. Any edges of the board cannot lose contact of the beam. The long edge of board should be laid vertically to the main keel. Fixing all the joints which the long edge and the beams joint together, except the joints along the wall. The centre distance of the fixing nail is in 300mm~600mm which is depended on the thickness of the board or the actual situation of the construction site. The centre of the hole is 20mm far away from the edge of the board.



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