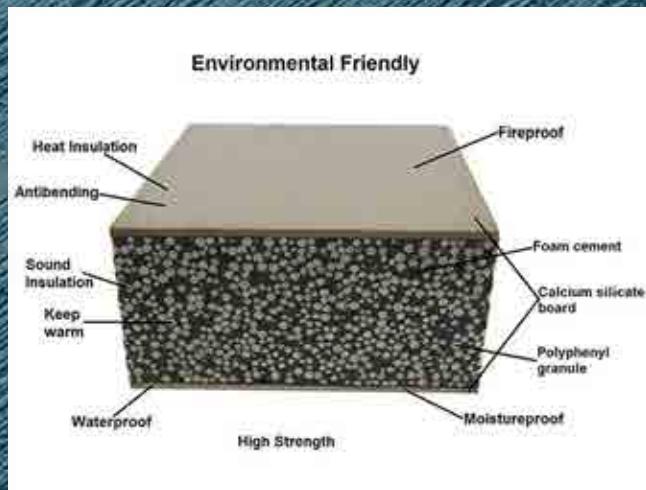




LIGHTWEIGHT CONCRETE PANELS





XIAMEN ZHONGJINGTAI BUILDING MATERIALS CO., LTD

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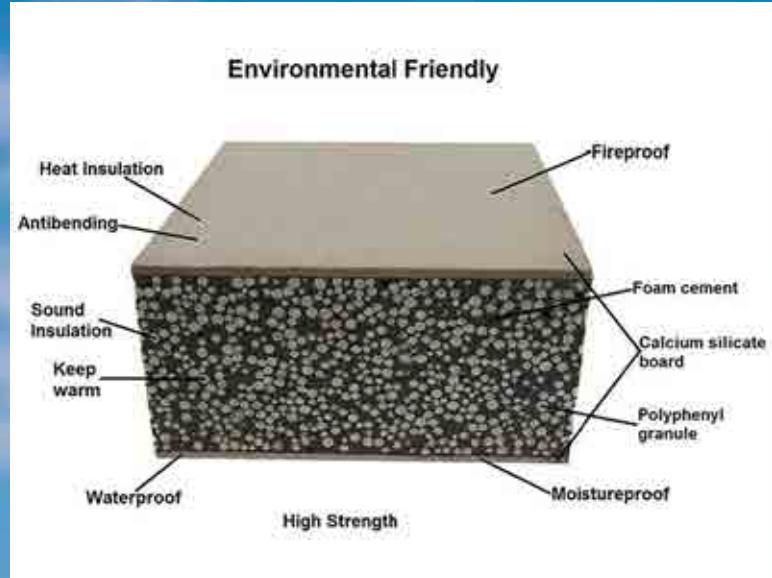
Mobile phone: +353 87 273 5108



WHEN
BRICKING
THE
WALL
BECOMES
HISTORY

Zhongjingtai Building Materials– New Energy–saving Material

Zhongjingtai—the Industry Leader
Has make great distribution to the modern wall materials
The house price has increased every minutes,
but this panel will save more space for your life.
The labour cost has raised now and then,
but the panel easy assemble and fast construction lower
the cost.
More fascinating features of panel will be discovered if
you start from here!



CONTENTS

01	CERTIFICATE	02
02	MANUFACTURING PROCESS	06
03	TECHNICAL PERFORMANCE INDICATES	07
04	PERFORMANCE COMPARISON	08
05	PRODUCT FEATURES	09
06	INSTALLATION PROCESS	17
07	FACING PROCESS	19
08	OTHER APPLICATIONS	20
09	INSTALLATION NODES	25
10	ACCESSORIES	31
11	PROJECTS	32



CERTIFICATE



CERTIFICATE

TÜV 02



CERTIFICATE

TÜV 01



CERTIFICATE



CERTIFICATE
SGS
01-04



CERTIFICATE

Verification of Compliance

No. EC.1282.11140226.WDE0632



CERTIFICATE
CE

Certificate's Holder: Xiamen ZhongJingtai Building Materials Co.,Ltd.
Unit 2A, Lianchang Building, No.6-8 Hull Avenue,
Huli District, Xiamen, China

Product: EPS (Polystyrene) Lightweight Concrete Energy Partition Wall

Model(s): 1500/1800/2270/2440/3000(L) x 600/610(w) x 50/60/75/90/100/120/150/180(T)mm

Directives: R 305/2011 Regulation for the Marketing of Construction Products

Standards: EN 13163:2012

Remark: This Verification of Compliance has been issued on a voluntary basis. ECM confirms that a Technical Construction File (TCF) is existent for the above listed product(s). The TCF satisfactorily covers the essential requirements of the above listed Directive(s).
Other relevant Directives have to be observed in case they are applicable.
This Document is only valid for the equipment and configuration described and in conjunction with the TCF detailed above. Whereas the Manufacturer is responsible of the certification of the product(s) and not exempted to perform all the necessary activities before placing the product(s) on the market.
The Manufacturer is also responsible of the internal production control to ensure the product(s) are in compliance with the essential requirements of the above mentioned Directive(s).
This certificate can be checked for validity at www.entecerma.org

Date of issue FEBRARY 2014

Certification Chief Manager

Tim Mahan



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CERTIFICATE



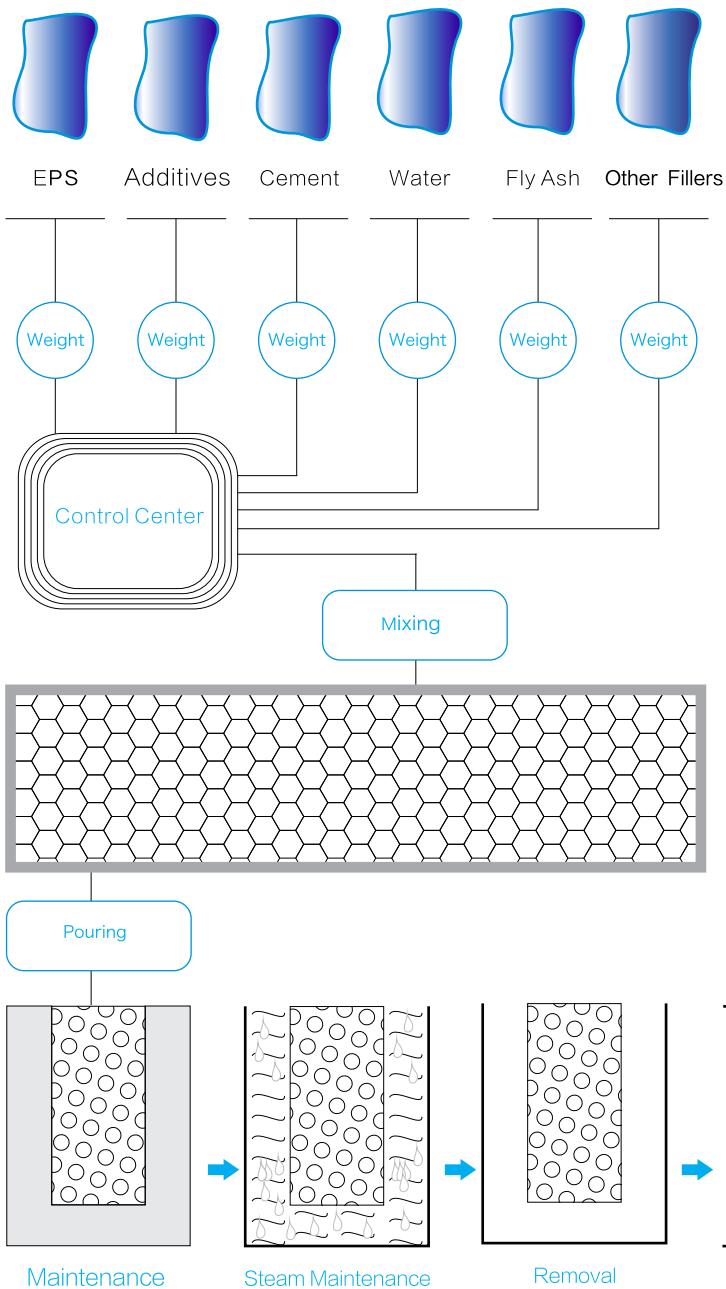
CERTIFICATE SGS 05



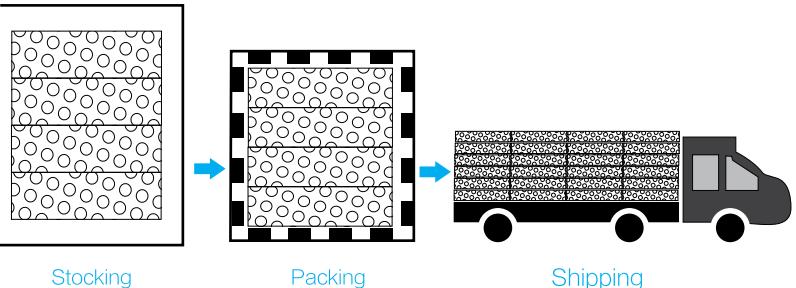
CERTIFICATE SGS 06



MANUFACTURING PROCESS



The strictly manufacturing process provide the client good quality products, which are widely applied on wall partition, roofing and floor.



TECHNICAL PERFORMANCE INDICATES

Item	Size(mm)	2270 x 610 / 2440 x 610								
	Thickness(mm)	60mm	75mm	90mm	100mm	120mm	150mm	180mm		
1	Anti-impact Capacity	Standard sand bag	≥5	≥5	≥5	≥5	≥5	≥5	≥5	
2	Anti-bending damage load	Times over deadweight	≥3.0	≥3.0	≥3.0	≥5.0	≥5.0	≥5.0	≥7.0	
3	Compressive strength	MPa	≥3.5	≥3.5	≥3.5	≥3.5	≥3.5	≥3.5	≥3.5	
4	Softening coefficient		≥0.8	≥0.8	≥0.8	≥0.8	≥0.8	≥0.8	≥0.8	
5	Surface density	kg/m ²	≤70	≤70	≤90	≤110	≤110	≤110	≤130	
6	Moisture rate	%	≤10	≤10	≤10	≤8	≤8	≤8	≤8	
7	Bulk Density	kg/m ³				550~650				
8	Drying shrinkage value	mm/m	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	
9	Hang force	N	≥1000	≥1000	≥1000	≥1000	≥1000	≥1000	≥1000	
10	Sound insulation	dB	≥35	≥35	≥40	≥42	≥45	≥50	≥50	
11	Fireproof	H	≥1.5	≥1.5	≥2.5	≥3.0	≥3.0	≥4.5	≥6.0	
12	Heat transfer coefficient	W/m ² .k	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	
13	I _{ra} Inner radiation index		≤1	≤1	≤1	≤1	≤1	≤1	≤1	
14	I _r Outer radiation index		≤1	≤1	≤1	≤1	≤1	≤1	≤1	
15	Frost resistance		–	–	shall show no visible cracks and surface should be on change					
16	The combustion properties of(A1orA2)		–	–	A1orA2					
17	Radioactivity Limit		<1	<1	<1	<1	<1	<1	<1	
18	U Value	K=W/(m ² .k)	0.9	0.8	0.6	0.5	0.45	0.33	–	
19	Environment-Friendly		100% non asbestos, no harmless to healthy							

The ZJT lightweight energy-saving sandwich panel is A kind of building material which is not any limited for selling and using. They also do not contain any harmful materials such as formaldehyde, benzene, etc.

PERFORMANCE COMPARISON

PRODUCT FEATURES

ZJT Lightweight Composite Energy-saving Sandwich Wall Panel is composed of face panel and interior filling. The material of face panel is thin fiber cement board or calcium silicate board, and the middle is filled with lightweight composite core materials, including cement, EPS and fly ash. The quality and technology of product have reached to a new level and became the leading brand among the similar products.

The product has the advantage of Solid, Lightweight, Thin, Better Strength, Impact Resistance, Hanging Strength, Heat Insulation, Sound Insulation, Fireproof, Waterproof, Easy Cutting, Pet and Rot Resistant, Increasing Usable Space. It can be arbitrarily slotted, without batch file, dry operation, environmental protection, which achieve energy conservation and energy efficiency. At the same time, it reduces the total area to be occupied by the wall and to raise residential practical area, alleviates the structure load, improves the building aseismatic capacity and safety performance, and reduce total cost. This production technology and application are the reform of the wall material, and a new breakthrough in our country.

The company relying on advanced equipment, first-class technology, excellent quality, strong, productivity, favorable customer service system, has set up the good brand, and been widely recognized by the construction market.



Anti-impact



Fast Construction



Environment Friendly



Sound Insulation



Fireproof



High Stability



Easy Installation



Slot and Groove



Performance Stability



Solid Core



Lightweight



Strong Hanging Force



Save Space



Green



Anti-Earthquake



Anti-aging



Waterproof



Economic

PRODUCT FEATURES
**HIGHLIGHT THE ECONOMIC BENEFITS
 REDUCE PROJECT COST**

01

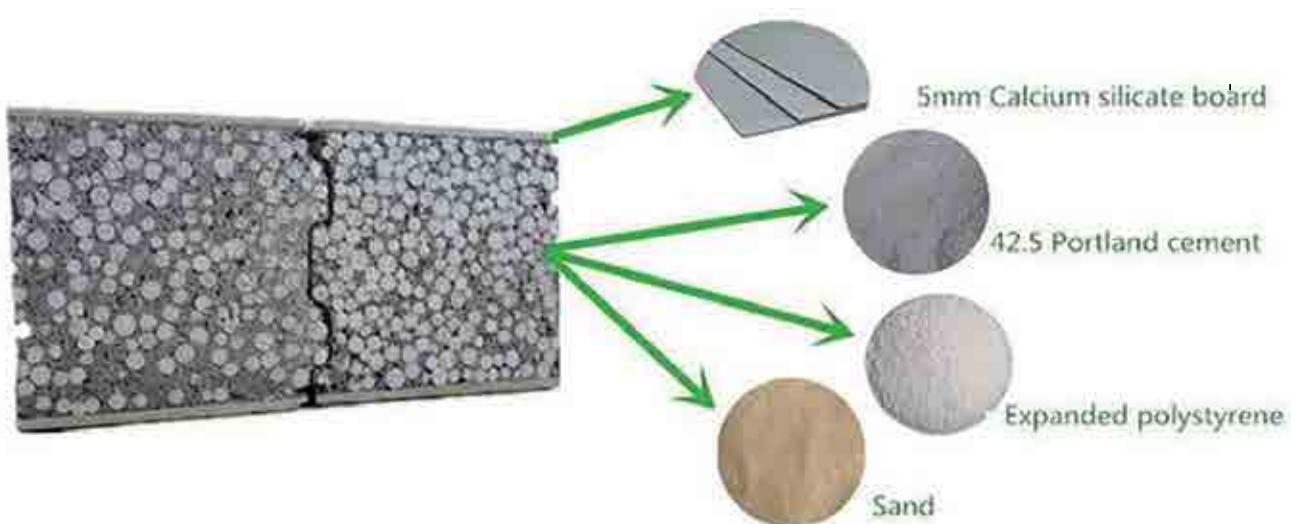


ZJT sandwich panel could optimize beam structures, adjust building layout and improve application performance. It has following economic advantages: save living space, fast construction, low labour cost and 70% of panel could be recycled.

15 meter high building

Items	Description	Percentage
Foundation	Pile/Ground/Underground Structure etc.	约15-20%
Structures	Beam/Floor etc	约30-40%
Buildings	Interior/exterior wall/Fence	约30-35%
Walls	Partition	约5-10%
Electromechanical	Water/Electronic/Fireproof etc.	约10-15%

Thickness	60/75/90/100/120/150/180/200mm
Width	610mm
Length	2270/2440mm
Remarks	Tongue and groove profiles to interlock each panel

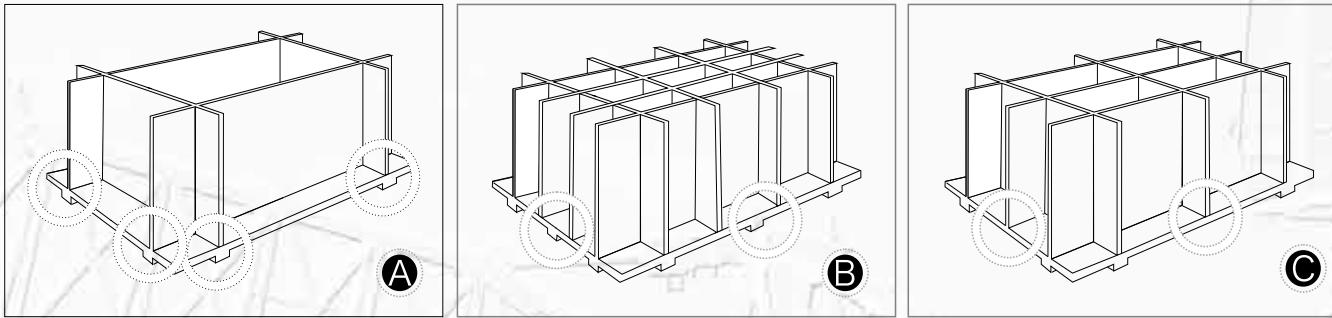




PRODUCT FEATURES

02

LIGHTWEIGHT、OPTIMIZE STRUCTURES



ZJT lightweight energy-saving sandwich panel, the weight for thickness 75mm is about 60KG/m², The average weight for the panel is 60-800kg/m³, while the bricks is 360kg/m², the Autoclaved Aerated Concrete is 120 kg/m². Before the design, the flexibility to optimize the beam-column structure, improve economic efficiency, improving the room reasonable layout. Without the limitation of beam-column, the sandwich panel could be arbitrarily grooved and easy installed.

BULK WEIGHT COMPARISON

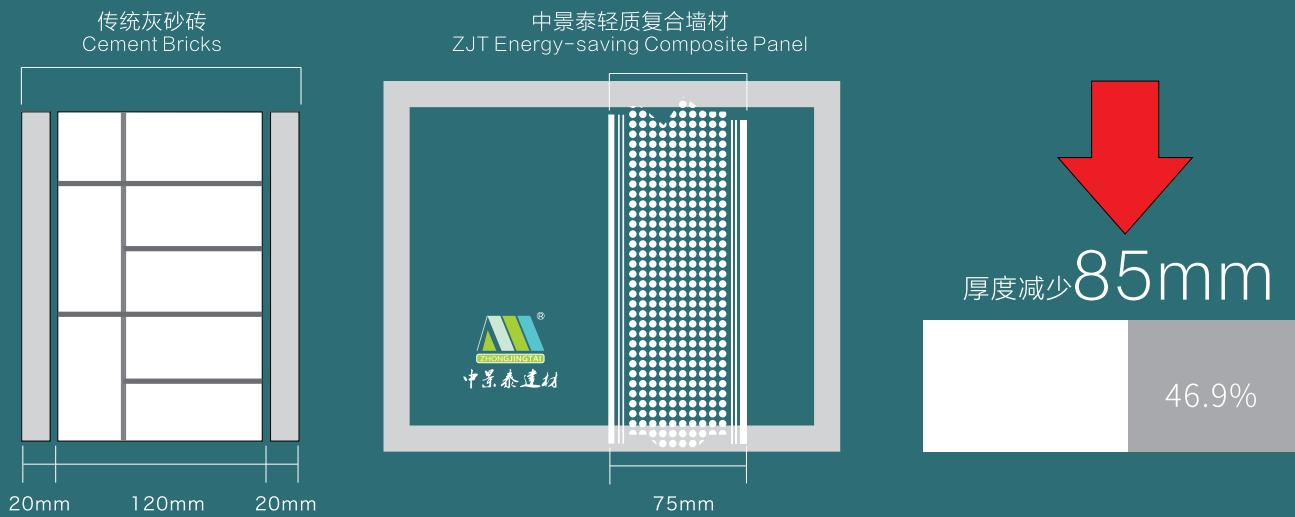


Conditions	Items	Cement Bricks	Autoclaved Aerated Concrete Block	ZJT Energy-saving Composite Panel
External wall:500M ² /F Partition:500M ² /F Internal wall:600M ² /F	Bulk density values	19KN/m ³	11KN/m ³	8KN/m ³
	180 External wall	1711KN	990KN	120=480KN
	180 Partition	683KN	396KN	120=192KN
	Internal wall	2395KN	792KN	90=432KN
	Total load	3762KN	2178KN	1104KN
	Total load reducing		1584KN	2658KN
	The reduction percentage		42%	70.6%

PRODUCT FEATURES

SPACE SAVING INCREASE LIVING SPACE

03



196



205

Red brick for four bedrooms, two living rooms, one kitchen and one bathroom 196m²
ZJT panel for four bedrooms, two living rooms, one kitchen and one bathroom 205m²
ZJT panels save 9 m²



PRODUCT FEATURES

04

SOUND INSULATION

中景泰60-180mm墙材隔音量
 $\geq 35-55\text{ dB}$



Other panel

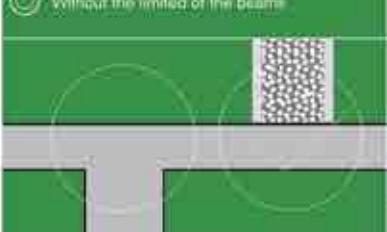
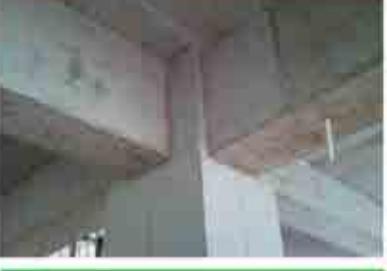
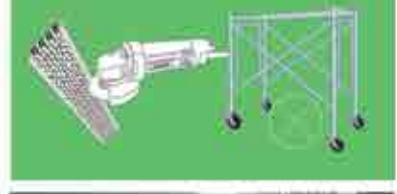
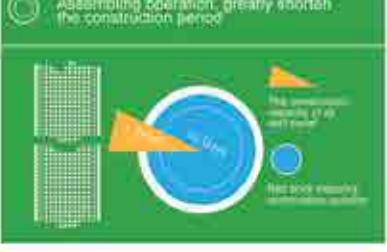


ZJT lightweight sandwich panels have good sound insulation, it is 40dB for 90mm thick wall and much better for thicker panels, the sound effects in the line with national residential sound requirements, much higher than other excuses brick wall of sound effects.



CONSTRUCTION INSULATION TESTING STANDARDS

Construction	Spaced locations	Insulation ability			
		Special grade	First grade	First grade	Third grade
Office/residential houses/school	Partition/ floor/roof	-	≥ 50	≥ 45	≥ 40
	Partition/ floor/roof	-	≥ 50	≥ 45	≥ 40
Hospital / Public Construction	Room	-	≥ 45	≥ 40	≥ 35
	Room with noise	-	≥ 50	≥ 50	≥ 45
	Operation room	-	≥ 50	≥ 45	≥ 40
	Operation room with noise	-	≥ 50	≥ 50	≥ 45
	Listening test room	-	≥ 50	≥ 50	≥ 50
Hotel / Entertainment Place	Guest room	≥ 50	≥ 45	≥ 40	≥ 40
	Hallway/door	≥ 40	≥ 40	≥ 35	≥ 30
	Window/wall	≥ 40	≥ 35	≥ 25	≥ 20

 <p>Without the limited of the beam</p>	 <p>Easy to carry and transport</p>
 <p>Dry construction, easy cutting, no waste</p>	 <p>The lower skill requirement</p>
 <p>Assembling operation, greatly shorten the construction period</p>	 <p>Improving benefit</p>

ZJT lightweight energy-saving composite wall panel has many advantages which light weight, compressive strength, strong impact resistance that other materials do not have in the construction of the transportation, handling, cutting. Because wall panel using assemble design, the skill of the operation personnel is required extremely low and master coolie all can do. Compared with traditional clay brick construction, the efficiency can be promoted about 10 times, without plaster processing, greatly save the time for a project. According to many groups construction sites data, brick masonry construction capacity of 12 individuals for eight hours a day, if use ZJT wall panel in construction, three people could complete in 60 minutes, so efficiency advantage is very significant.



PRODUCT FEATURES

06

EARTHQUAKE RESISTANCE AND IMPACT RESISTANCE

ZJT building materials which has the high strength and high hardness features make its good performance in terms of shock. ZJT in full impact vibration system that triad structure, prefabricated construction, super thick groove yin-yang design, the reinforced steel make wall panels base closely and firm connection, also can resist 8 intensity earthquake, whose seismic performance is 1.5 times that of the traditional wall materials, and non-deformation, integral sex is good, metope is not loose etc. Span in the tall layer and long wall compartment, the seismic performance will be more outstanding and ZJT light energy-saving wall panel in good stability makes it become a preferred modern new type energy-saving building seismic wall panel products.



Under the condition of the same magnitude, if using ZJT wall panel would greatly reduce the wall damage rate.



ZJT COMMITTED TO THE SECURITY ARCHITECTURE



PRODUCT FEATURES

STRONG HANGING FORCE,CAN BE SLOTTED WIRING AND BURIED PIPE

07



ZJT lightweight energy-saving composite wall panel is made of the high strength, hardness polymeric material stir forming, through multi-channel processing working procedure, so the hardness and strength meet the national energy saving building materials standards. By hanging test, the single point hanging force of wall panel can be up to 50 kg and above level, and fully meet the wall of the general bearing applications, such as the installation of air-conditioning, condole ark, water heater, fixed, marble mesa skeleton support and so on. In building wall applications, common wire and cable need through the grooving buried in wall, and routers, switches, sockets, power controller need excavate hole in the wall, ZJT wall panel can meet the above all demand and can easily slot hole on wall panel, also can reduce dust and increase the operation environment quality



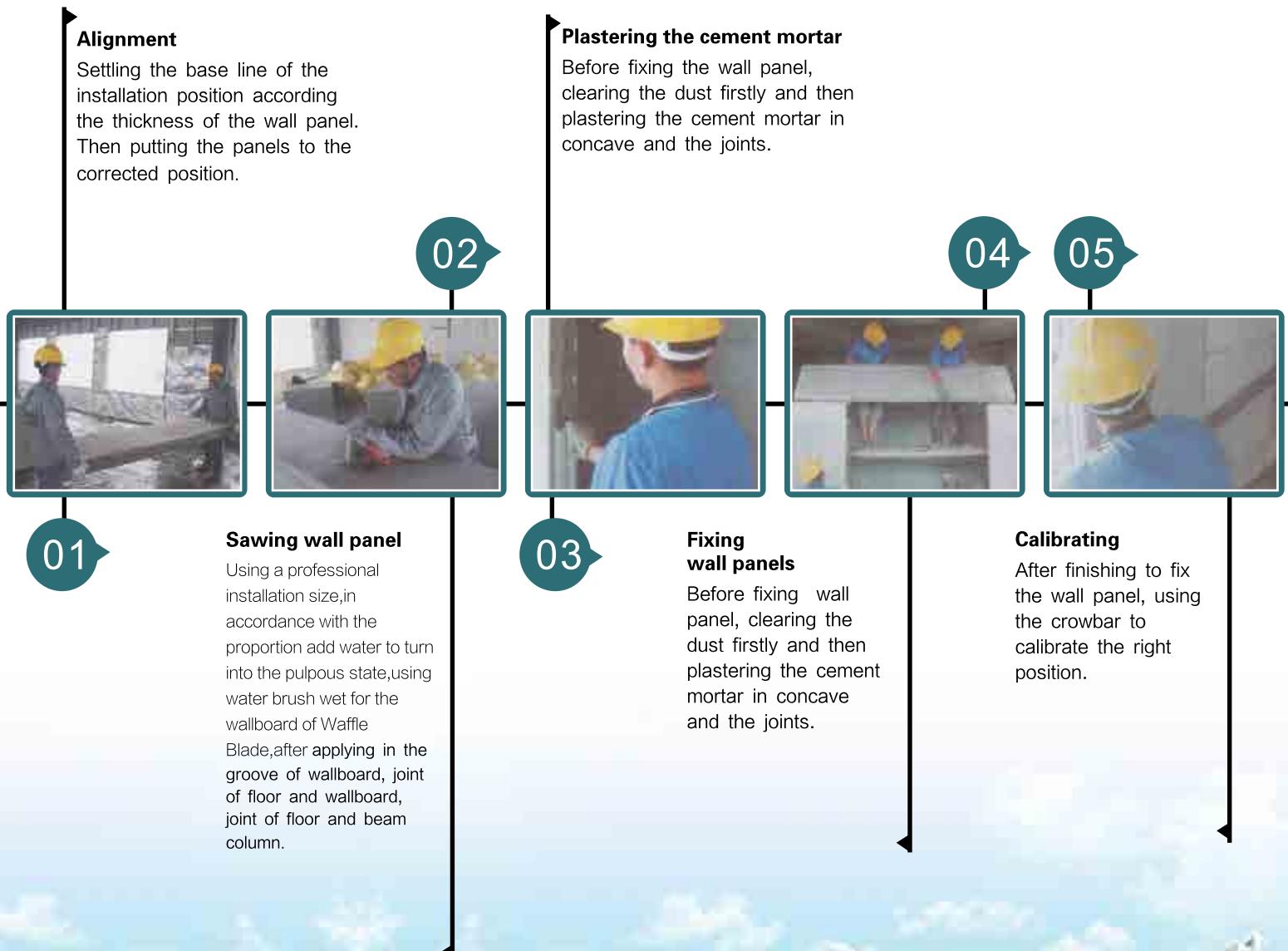
Single point hanging force greater than or equal to 50kg



Can be slotted wiring and buried pipe



INSTALLATION PROCESS





Reinforce on bottom



Reinforce on top



Reinforce on left and right

06

07



Adjustments

After calibrating, sticking two steel bars to the wall panel to fix except the wood wedges



Filling joints

After the installation and adjustment, clearing the spilled mortar and using the steel to fill the joints with the depth 4-5mm.
缝口,深度控制在4-5mm为宜

08



Plastering the cement mortar

After installation for a week, taking out of the wood wedges and plastering the mortar on the joints.



Inserting the wires

It is forbidden to chisel the slot on the both sides of the same position. The distance should be more than 10 cm between the switch and box and the length of the pipeline can not be longer than 35cm. The depth of the slot can not exceed 2/3 of the thickness of the wall panel.

09

Installing the windows and doors

We have many different solutions for installing the windows and doors which include wood doors, glass fire-resistant door, Aluminum alloy doors and windows, etc.

10



FACING PROCESS

01 SWABBING

when choosing coating, If the demand on the surface of the wall is higher, the ZJT wall panel can also like the traditional brick wall, plaster processing then sanding and finishing processin

02 TILE FIXING

ZJT wall panel has properties of the moisture-proof and waterproof properties especially suitable for bathroom, kitchen, bathroom and other kinds of damp areas which are commonly used for ceramic tiles making facing, when adopting the construction material, ceramic tile adhesive is a better way to handle it and also can construct construct like the way of the normal brick wall tile fixing

03 PASTE PAPER OR WALL CLOTH

ZJT light wall panel has smooth surface, as the simple portable beautiful modern architecture decorative materials, wall paper and wall cloth are very suitable for using as facing materials whose construction method in accordance with the common wall materials, with the white latex, polyethylene and other water-soluble viscose.

04 PASTE FACING BOARD

ZJT lightweight energy-saving composite wall panel can be well bond with the white latex, stand, all-purpose adhesive, advanced glass adhesive, structural adhesive, marble glue which are the best material pasting various panels, so the good facing materials such as thin board, fire prevention board, PVC panel, sheet, aluminous model board etc. are also very suitable for the light wall panels.

05 PASTE MARBLE

ZJT energy-saving wall panel also can easily handled with marble finishing. 1. A wet stick processing: using marble glue or puissant ceramic tile adhesive directly which can handle wainscot position better. 2. A dry hanging handling: nailing the skeleton of the emplacement marble directly on the wall and fixing skeleton.



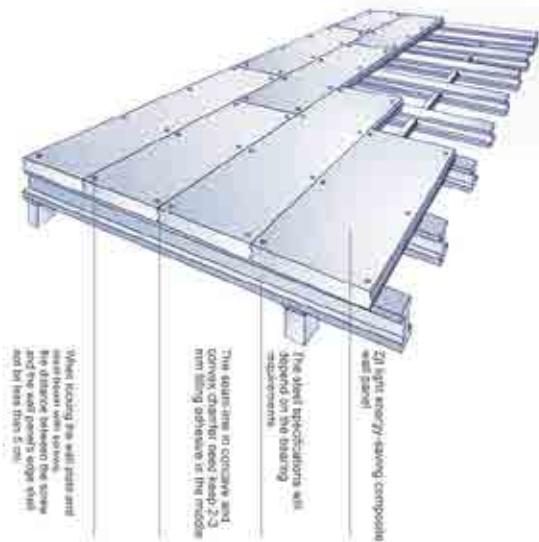
FACING PROCESSING REMINDER

Ensure the wall surface is clean and dry. Keep the gaps smooth between the wall panels. When wall panel is used in wet areas such as toilet, should be plastered a layer of alkaline waterproof paint, avoiding sheet viscose water absorption and wallboard water absorption, thereby increasing the stability of the adhesive material. When installation is complete, they need three days to five days or so to achieve stable, in this period the facing installation operation is not recommended. When stickup ceramic tile and marble, please use ceramic tile adhesive stickers and strictly accordance with the ceramic tile adhesive construction process operation. When stickup ceramic tile, please stagger porcelain aperture cracks and wall panel to avoid cracking and water seepage phenomenon. When laying large area of ceramic tiles, should stay a greater than 5 mm every 5 meters of expansion joints which be filled with waterproof material. When laying ceramic tile is completed, there should be a warranty period of time to avoid collision, vibration, note waterproof moistureproof and prevent exposure.



OTHER APPLICATIONS

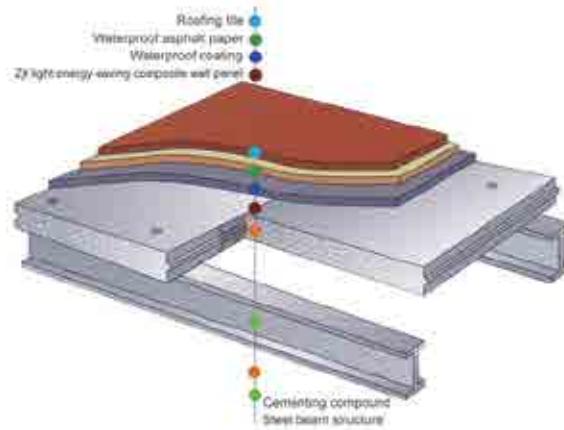
ZJT lightweight energy-saving composite wall panel not only can be applied to wall materials, but also make it unique in floor application for the outstanding performance such as the high bearing, high strength, light weight, construction fast, slotted wiring and so on. It is especially suitable for factory, workshop, warehouse, store, temporary buildings, building floors, etc. When used as a floor and roof, it can be used with steel structure and the stability is very outstanding.



01 FLOOR APPLICATION



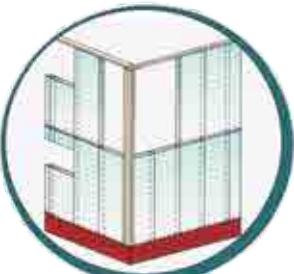
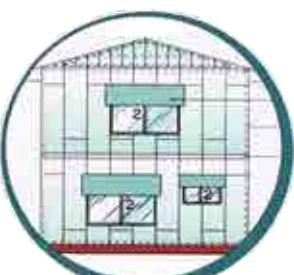
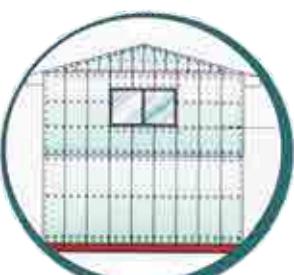
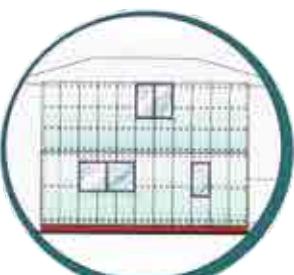
02 ROOF APPLICATION



OTHER APPLICATIONS

03 APPLICATION IN EXTERIOR WALL

ZJT wall panel has the characteristics of sound insulation, heat insulation, warm-keeping and preventing condensation water. Its ability of moisturizing can maintain moisture in the air at a constant state and ecological regulation. It accords with the new building trend. It can be widely applied to various occasions, such as low-rise buildings, duplex apartments, villas, hotels, office buildings, commercial spaces and urban houses. ZJT lightweight energy-saving wall panel as a non-bearing wall panel, which can be installed with steel keel, bearing part can be kept in steel frame and beam column.

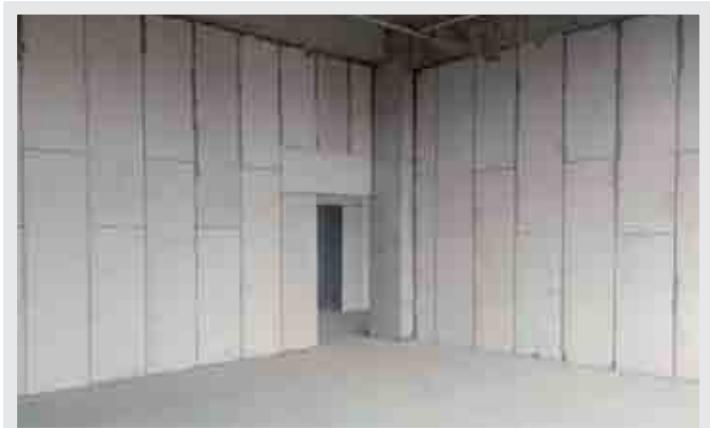


ZJT lightweight wall panel has been used for exterior wall of villa

OTHER APPLICATIONS

APPLICATION IN INTERIOR WALL

04



With excellent fireproof, best hanging force, sound insulation, heat insulation, waterproof, fast installation, ZJT EPS wall panels have been widely applied to interior and exterior walls.

OTHER APPLICATIONS

05 APPLICATIONS IN HIGH BUILDING



Super high walls/abnormal wall uses prefabricated installation of the triad steel structure. Each panel has compact connection and solid form. It is widely used in all kinds of special-shaped building walls and super-high building walls. Its shock resistance is 1.5 times more than general wall and the anti-seismic property is several times more than ordinary clay brick, which is safe in 8 magnitude earthquake. From now on ZJT lightweight wall panel is the ideal application system of high quality and high standard building.

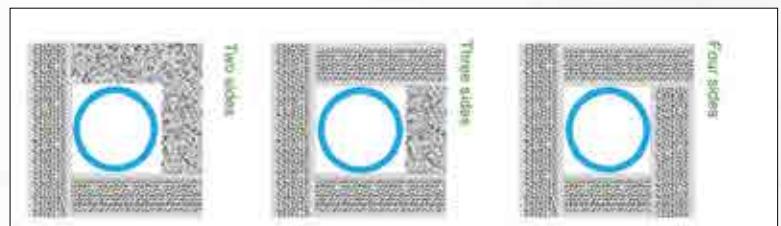


OTHER APPLICATIONS

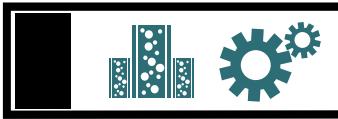
06

ZJT lightweight energy-saving sandwich wall panel has features of lightweight, easy cutting, dry used, and easy installation. It is suitable for pipe wells, air shaft, fire wells, equipments partition and room partition wall. As priority material for pipes and fire wells, it has the advantages:

1. Prefabricated type, easy and quick to install
2. Dry used, no pollution and improve the working environment
3. Good integrity, anti-seismic, impact resistant and waterproof
4. Easy to open hole, can be facilitated at any time, and save the cost
5. Good hanging force; heavy duty pipeline can hang easily
6. Surface smooth, easy to decorate

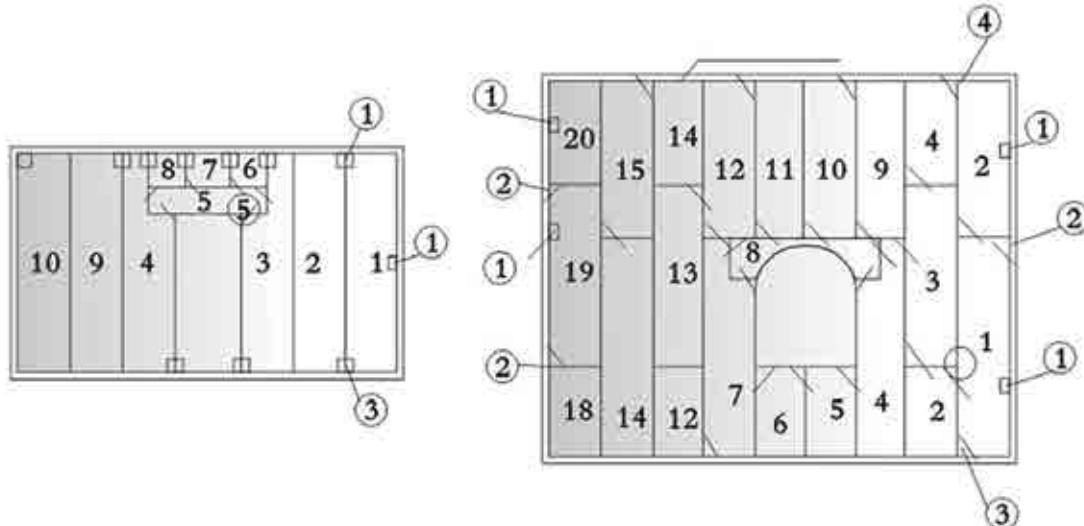


▲
**THE WAY OF ROUND IN
DIFFERENT CROSS SECTION**

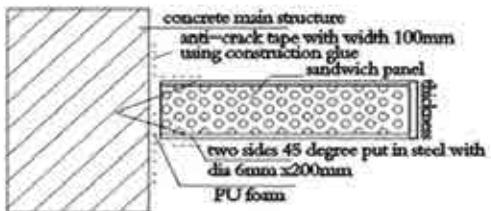


INSTALLATION NODES

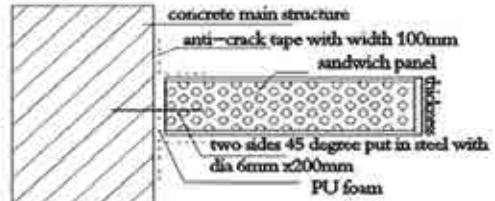
Installing of lightweight composite sandwich panel as interior wall on concrete structure



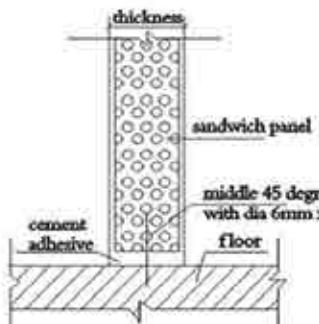
1. Installation sequence: 1,2,3,4,5,6,7,8,.....
2. Sticking anti-crack tape on joints if all the wall panels are decorated with painting (use construction glue for the interior wall, painting for the exterior wall).
3. The fitting of the door and window is according with concrete air blocks or normal wall materials.
4. Using iron fastening on the beginning of expansion joints, sealing with PU foam. Using adhesive to connect each board and filling full adhesive. Reserving expansion joints if the length of the wall is over 3m, the distance between the two joints should be less than 3m, the width of the joints 8-10mm is better, and filling with PU foam.



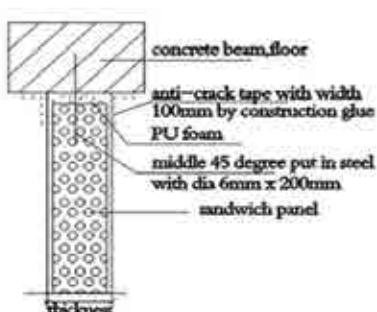
① Connect panel with main structure



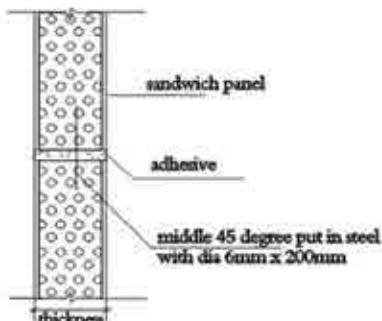
② Connect panel with main structure



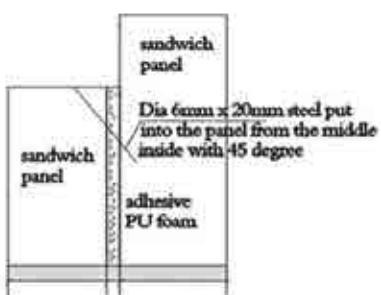
③ Connect panel with floor



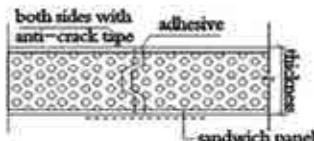
④ Connect panel, beam, floor



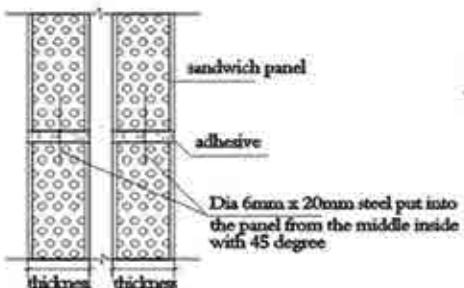
⑤ Panels' vertical connect



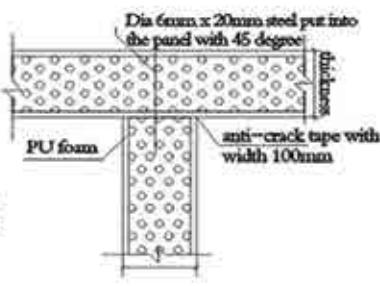
⑤ Connect panel with panel



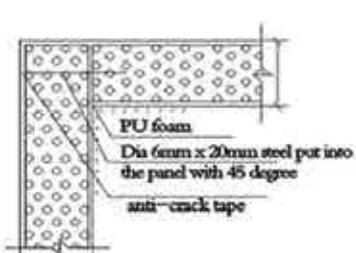
⑤ Connect panel with panel



⑥ Double layer panel vertical connection



⑦ "T" connection of panels

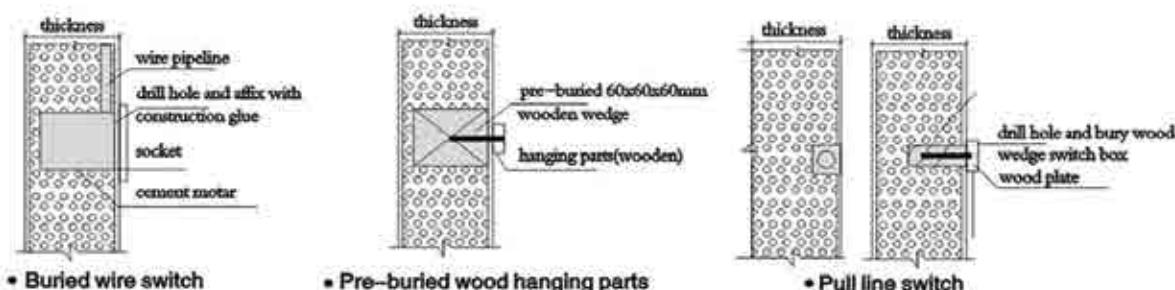


⑧ 90 degree connection of panels

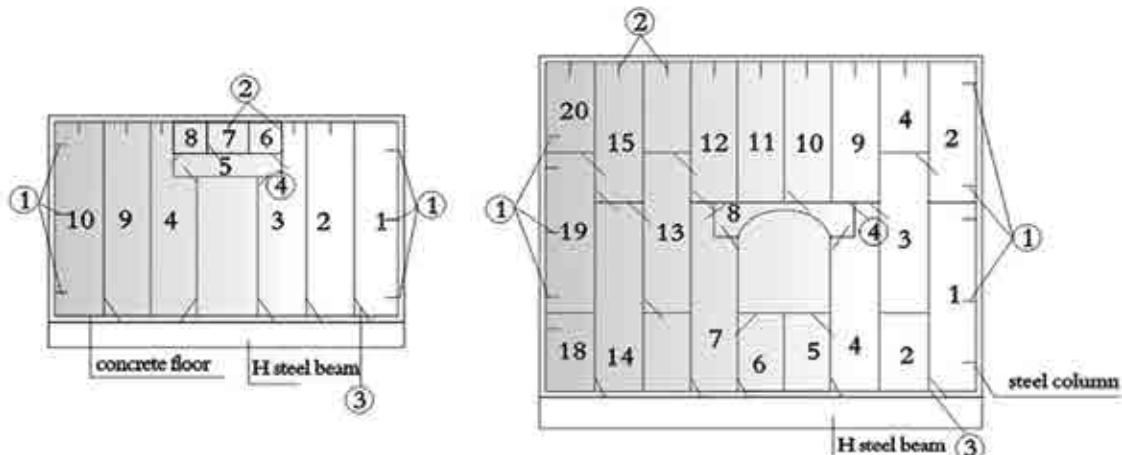


INSTALLATION NODES

Installing of electrical switch and socket



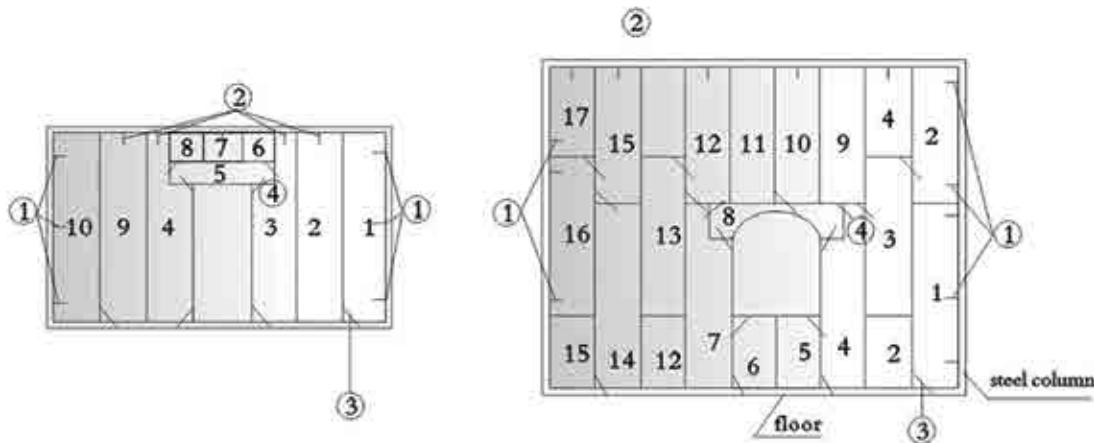
Fitting of lightweight composite sandwich panel as the wall on steel structure



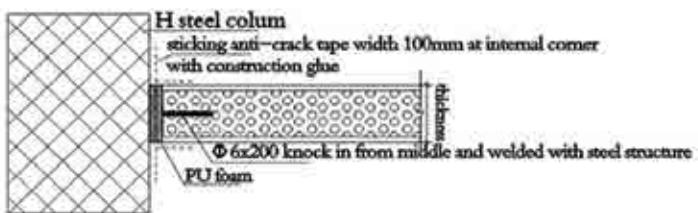
1. Installation sequence: 1,2,3,4,5,6,7,8,...
2. Sticking anti-crack tape on joints if all the wall panels are decorated with painting (use construction glue for the interior wall, painting for the exterior wall).

3. The fitting of the door and window is the same as concrete gas blocks or other ordinary wall materials.
4. Fix the both ends of each axes with iron parts and reserve extension gap, and fill the gap with PU foam, connect the panels with cement adhesive. Leave the extension gap in the middle if the wall length exceeds 4m, every two extension gaps with the distance is less than 3m, the gap width is 8mm–10mm, and filled with PU foam, the external wall should be covered with waterproof glue.
5. All the joints between panel and floor panels and steel beam are filled with PU foam.
6. The joints between panels also can be reserved and filled with PU foam.

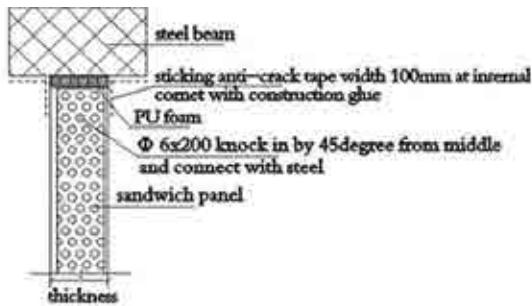
Fitting of lightweight composite sandwich panel as the wall on steel structure



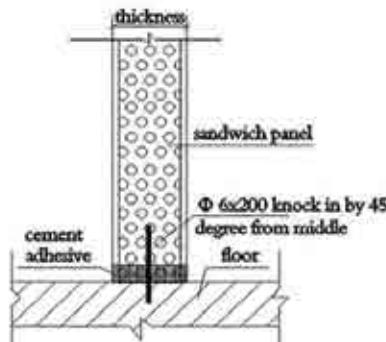
1. Installation sequence: 1,2,3,4,5,6,7,8, ...
2. Sticking anti-crack tape on joints if all the wall panels are decorated with painting (use construction glue for the interior wall, painting for the exterior wall).
3. The fitting of the door and window is the same as concrete gas blocks or other ordinary wall materials.
4. Fix the both ends of each axes with iron parts and reserve extension gap, and fill the gap with PU foam, connect the panels with cement adhesive. Leave the extension gap in the middle if the wall length exceeds 4m, every two extension gaps with the distance is less than 3m, the gap width is 8mm–10mm, and filled with PU foam, the external wall to be covered with waterproof glue.
5. Fill the gap between panels and steel structure with PU foam or construction glue.



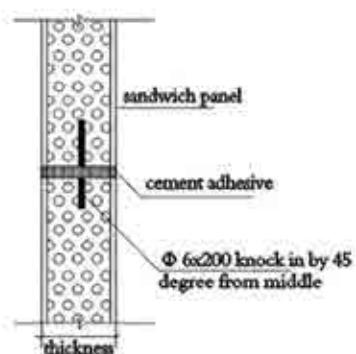
① Connect panel with steel structure



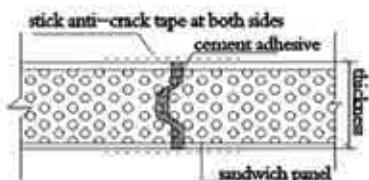
② Connect panel with steel beam



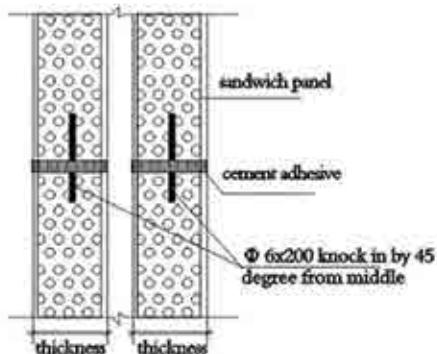
③ Connect panel with floor



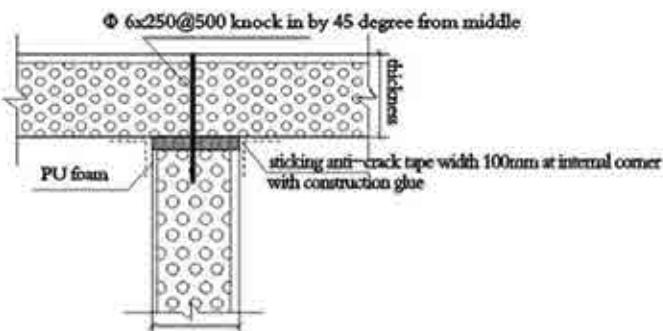
④ Connect panel with panel



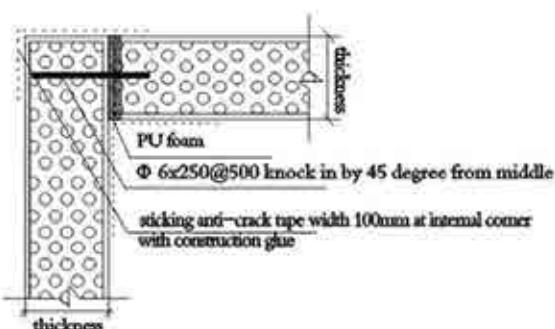
⑤ *-* Connect of panels



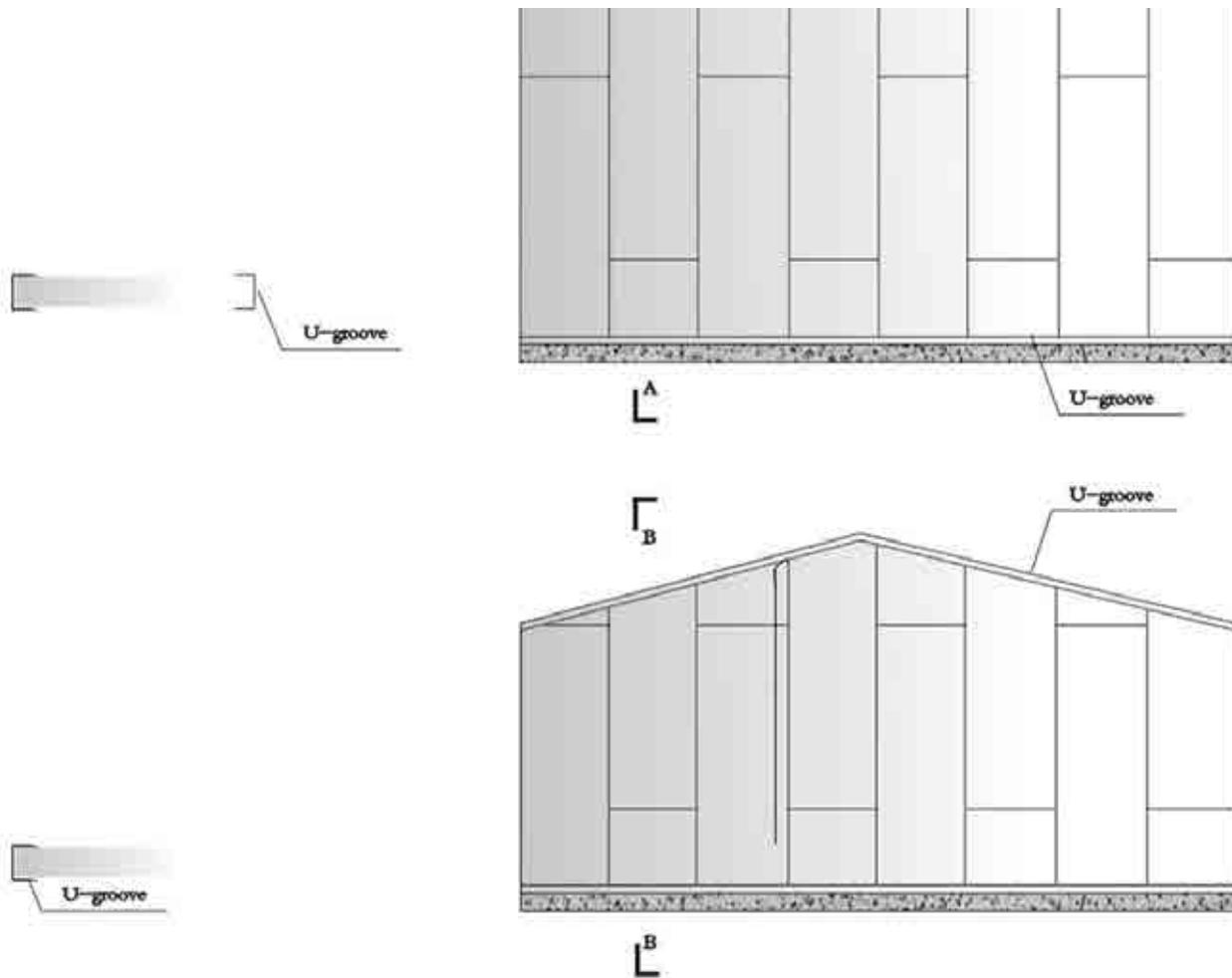
⑥ Double layer panel vertical connect



⑦ T-connect of panels



⑧ 90 degree connect of panels



ACCESSORIES

01 SPECIFIC MORTAR

The anti-crack mortar is mainly made from 42.5 portland cement mixed with anti-crack materials and additives by the pre-dry mixing techniques. Plastering on each side of tenon side of panel, to connect panel and panel, panel and structure.



02 ELECTRIC SAW

Cutting Panels



03 STEEL BAR (Φ 6*200mm)

Knocking into the wall panels by 45 degree to fix the wall panels.



04 WOODEN WEDGE

Using wooden wedge temporarily fix wall panel vertically and leveling correction



05 ANTI-CRACK TAPE

Paste in gaps between two panels to avoid cracking



PROJECTS



PROJECTS



PROJECTS

