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CONSTRUCTION MATERIALS

Passive House Fabrication

SUPER ENERGY-EFFICIENT "GREEN" LIGHT STEEL FRAME VILLA

MUHU
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Company Introduction

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01 Company Introduction

Based on the belief of building excellent housing for people throughout the world, MUHU presents MUHU's latest patented product - MUHU prefabricated houses that addresses all the concerns for homeowners - Green (environmentally friendly), Smart, and extremely affordable. These latest designs adopt leading innovative technology, environmentally friendly materials and simple yet reliable processes to give homeowners pride in what they invest in.

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Business License

Patent Certification

Trustworthy and Promising Enterprise

Honor Certificate

01 Company Introduction

These new designs provide healthy, comfortable and efficient use of spaces and appease any owners' environmental concerns. Our buildings are extremely reliable with Smart Exterior Insulation Finishing Systems (EIFS) that are energy efficient, reduce utility costs and are extremely harmless to the environment.

MUHU has built houses for over 36 years. We utilize a modern floor slab production base. MUHU remains very customer-oriented and is truly proud of these new innovations. Our materials can be used in factories, building apartments, villas, warehouses and any other structure. MUHU can do everything from providing design-foundation, construction-light-steel designs to producing-main structure construction. Customer-first service for acceptance and delivery of the products throughout the entire process. MUHU looks forward to building the right home for you and one that owners will be extremely satisfied with.

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Product Features Introduction

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I

Light Steel Frame Housing

02 Light Steel Frame Housing

- Earthquake resistance: Withstands rare earthquakes with seismic intensity above magnitude 9.
- Wind resistance: The wind resistance level is above 16 (Category 3 typhoon).
- Durability: The service life of the main structure exceeds more than 70 years.
- Fire resistance: The fire rating of the main walls of the house is rated at B1 level.
- Load-bearing capacity: Load-bearing can reach more than 500kg/㎡.
- Sound insulation: The sound insulation of the light steel exterior wall can reach 65dB and the sound insulation of the light steel interior wall can reach 45dB.

02 Light Steel Frame Housing

- Thermal insulation: The thermal resistance efficiency of 120-150mm thick composite wall is 11 times that of brick wall with equal thickness.

- Environmental protection: 100% of steel structure materials can be recycled, and most of other supporting materials could be recycled.

- Energy-saving: Using new materials for thermal insulation, the energy required for heating and cooling can be 65% more energy-efficient than traditional buildings.

- Housing space: Light steel integrated houses increase usable area by 10% to 15% compared with traditional buildings

- Short construction period: The standardized assembly of light steel structure is simple and fast, saving 2/3 of the construction period compared with traditional structures.

02

Lightweight and Convenient

The structural materials used have extremely high strength, thin diameter and low steel consumption (usually the overall steel consumption of low-rise buildings is within 30Kg/m2, and the steel consumption of multi-story buildings is within 40Kg/m2), The overall weight of the building is light, only traditional brick-concrete about 1/5 of the structure.

The light weight of the structure reduces the transportation and hoisting costs. The foundation load is also reduced accordingly thus reducing those costs. The structure has low requirements on the foundation making the structure especially suitable for harsh areas with complex terrain such as mountains, river beaches, sandy soil, and islands.

02

Safe and Durable

The light steel villa wall, roof truss structure and inner and outer wall panels form a solid plate rib structure that greatly improves the ability to resist horizontal loads and vertical loads making these structures better earthquake and high-wind resistant. Tests have proven that the structure can resist earthquakes of magnitude 9 and strong winds of well over 16 (Category 3 typhoon).

The structural parts used are all made of high-strength hot-dipped galvanized steel sheets. Self-tapping screws are used for assembly without welding technology that effectively protects the integrity of the aluminum-zinc film and has excellent corrosion resistance. In addition, all structural parts are enclosed in a water-tight composite wall that will not corrode, mildew, or allow infestation of insects. The service life of the building can reach more than 70 years.

02

Energy Saving and Environmental Protection

The light steel structure can be 100% recycled and has great value significance for owners. The wall and roof combination scheme has excellent performance and provides unsurpassable thermal and sound insulation and waterproof performance, reducing energy consumption by 65% compared with traditional brick-concrete structures.

All the building materials of the entire light steel integrated houses can be mass-produced and prefabricated in a factory with a high degree of mechanization on site and minimal use of water usage, truly realizing the future industrialization of housing construction.

02

High Quality & High Comfort

Due to the use of excellent thermal and sound insulation and energy-saving structures and materials, the indoor living comfort is unsurpassed by other construction methods. The built-in piping and the thin diameter of the walls effectively increase the usable area of the house (more than 10-15% higher than that of conventional brick-concrete housing). Coupled with the diversity and strength of the steel structure, the shape of the house can be unique, “personalized”, and beautiful.

The introduction of highly advanced technology and years of practical experience have enabled our company to offer a complete and comprehensive system of technology, construction, quality control and after-sales service/support.

II

Construction Process Introduction

Construction Process Introduction

Foundation construction process:

• **Function:** Transfer the load of the wall or column to the foundation to meet the requirements of the load-bearing capacity and avoid deformation of the foundation.

• **Features:** Lightweight, only 1/5 weight of the brick-concrete structure, 1/8 of the concrete building, resulting in a reduction of costs. The construction is simple and the construction speed is fast.

• **Classification**

Strip foundation, slab foundations, etc., are selected according to geological conditions. Strip foundation is generally used.

Construction Process Introduction

Foundation construction process:

- **Construction process**

Foundation pit constructed——foundation pit excavation and inspection——setting out—cushion pouring and maintenance—positioning and setting out—formwork and embedded parts installation—concrete pouring and formwork removal—embedded hydropower pipelines ——Indoor ground concrete pouring (polyethylene plastic film as a moisture-proof layer) 15 cm concrete.

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Construction Process Introduction

Foundation laying out

Foundation pit inspection

Cushion maintenance

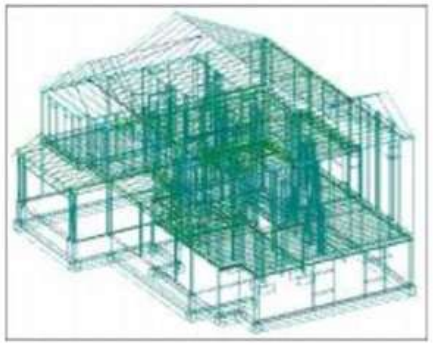
Foundation pouring

Foundation formwork support

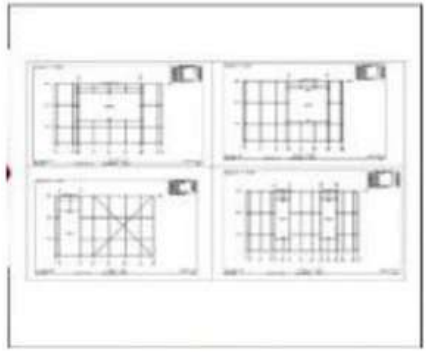
Construction Process Introduction (2)

Light Steel Design and Production Process

Building needs of each household



Building structure design



Computer keel design

Production component packaging

Light steel keel production

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Construction Process Introduction (3)

The construction process of the main structure

Component assembly

wall structure installation

floor installation

compartment piping operation

external wall installation

roofing and waterproofing work

installation completed

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Material Display

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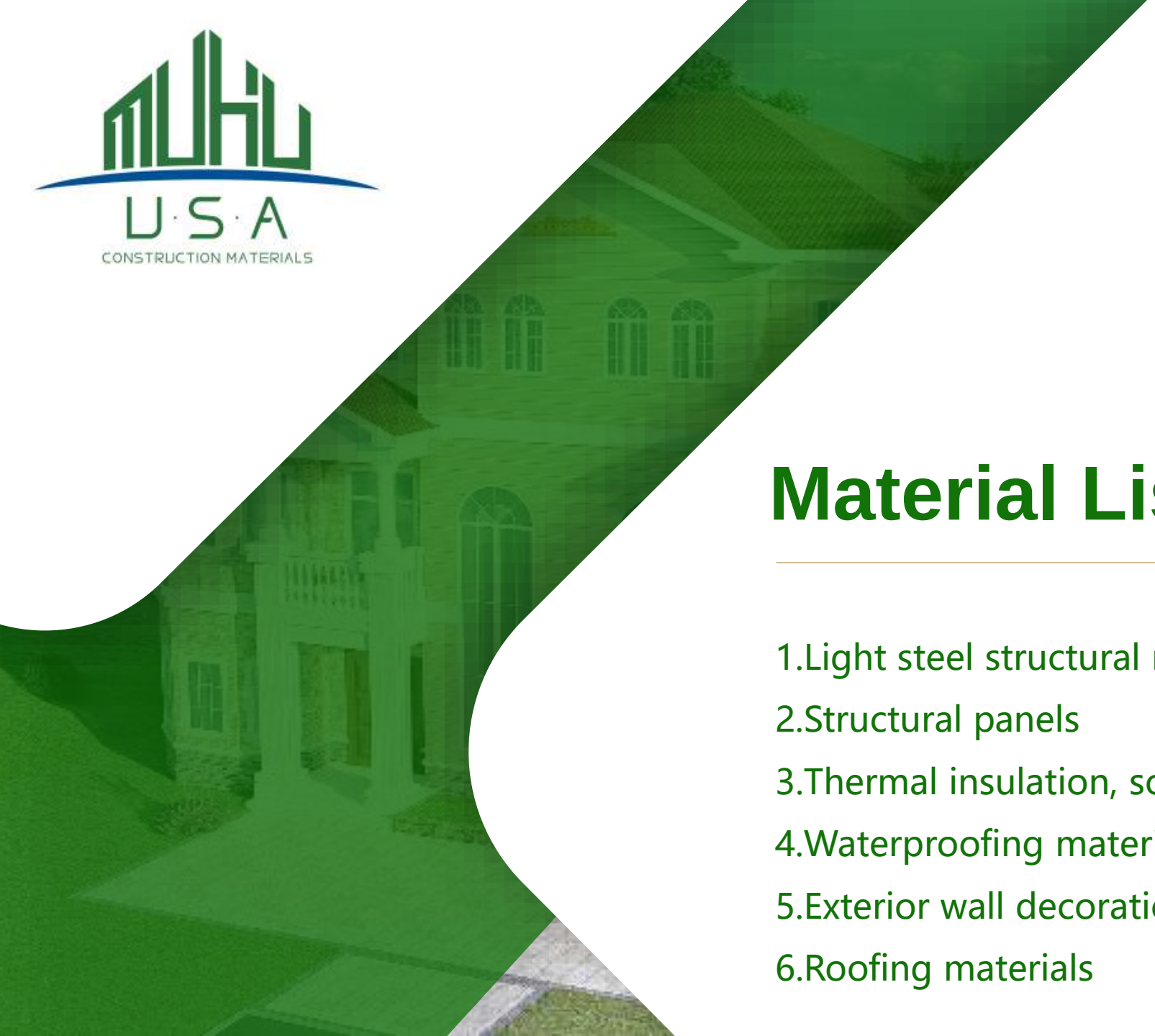

Material List

1.Light steel structural materials

2.Structural panels

3.Thermal insulation, sound insulation and fireproof materials

4.Waterproofing materials

5.Exterior wall decoration materials

6.Roofing materials

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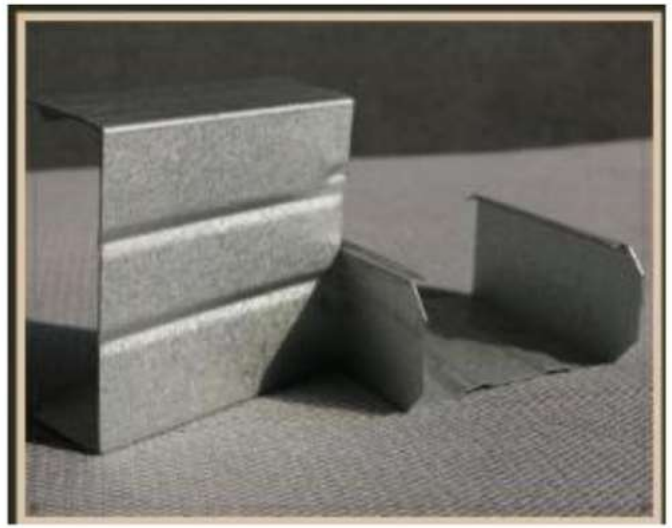
Material display - Light steel structure material

Light steel structure material - light steel keel

MUHU adopts double-sided galvanized(G550—AZ150) 275g/㎡ cold-rolled plate as raw material, C-shaped and U-shaped keel as light steel structure material.

Company executive standard:

Steel: American AISI (American Iron and Steel Institute standard).
Galvalume: American ASTM (American Society for Testing and Materials standard).
Construction: "Technical Regulations for Construction of Low-rise Cold-Formed Thin-walled Steel Buildings".



Material display -Structural board—OSB board

Structural board—OSB board

Oriented Strand Board is a style of oriented structural board that uses small-diameter wood, thinned wood, and wood core as raw materials and supports the board through a specific molding process. Since the shavings are arranged in a certain direction, its longitudinal bending strength is substantially greater than that of the transverse direction. Much more, in line with the stress requirements of structural materials. This board can be sawed, sanded, planed, nailed, drilled, etc. just like wood.

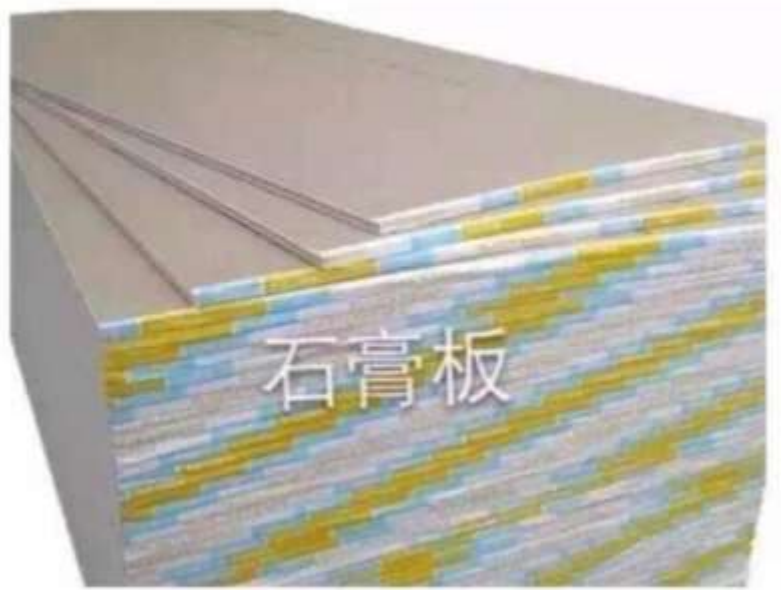
The OSB boards used by MUHU are all exported boards, and the formaldehyde emission is much lower than the European standard E1 level.

Material display -Structural Board—plasterboard

Structural Board—plasterboard

The building board is made of building gypsum as the main raw material, mixed with appropriate amount of light aggregate, fiber reinforced material and admixture to form the core material, and firmly bonded with a protective paper. Its advantages are:

a. More comfortable, because its "breathing" function can help regulate indoor humidity;
b. More beautiful, the surface of the gypsum board is flat, the boards can be firmly bonded to form a seamless structure, and the architectural decoration effect is good;
c. More heat insulation, thermal conductivity 0.3, better than brick (0.43) and cement (1.63);
d. More fireproof, gypsum releases hydrated water when heated, and the fire resistance limit can reach more than 2 hours.



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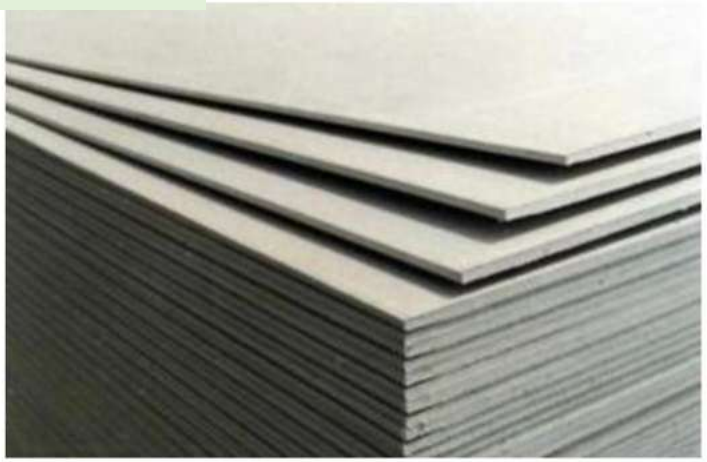
Material display -Structural panels - cement fiberboard

Structural panels - cement fiberboard

It is a kind of building board made of silicon and calcium materials as the main raw materials, adding plant fibers, and going through pulping, plastering, pressurizing and curing.

a. Class A1 non-combustible material, no toxic gas release at high temperature.
b. The water absorption rate is less than 40%, and it will not deform when wet.
c. The bending strength is greater than 20 MPa, and it is not easy damaged or broken.
d. Calcium silicate board has stable performance, acid and alkali resistance, is not easy to corrode and will not be damaged by moisture or insects, etc., all guarantee a long service life.
e. No cracking or delamination after 25 freeze-thaw cycles.



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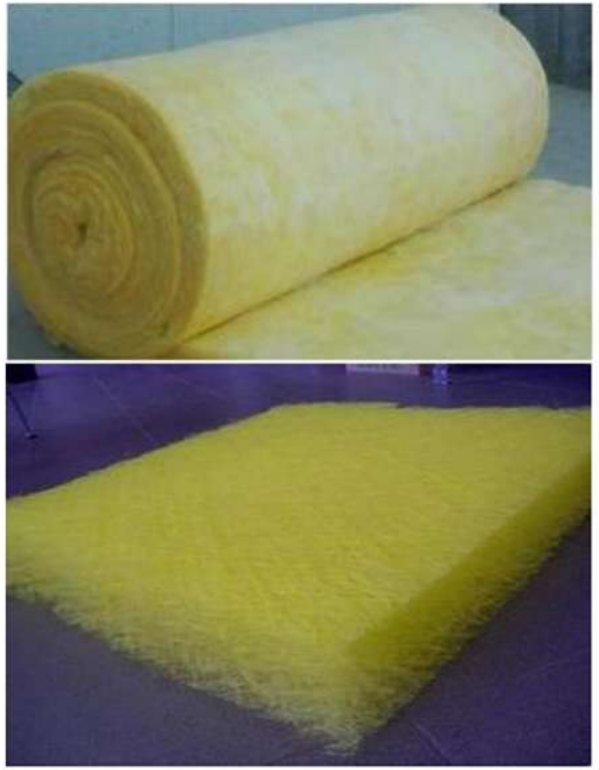
Material display- glass fiber cotton

Thermal insulation, sound insulation and fireproof material - glass fiber cotton:

Glass fiber cotton is a product made by fiberizing molten glass with a centrifugal blowing process, spraying a filamentous material made of a thermosetting resin, and then heat curing it.

a. Class A1 non-combustible materials.
b. No smell, environmentally friendly and non-toxic.
c. Thermal conductivity ≤0.03W/cm.k.
d. Heat resistance ≥ 700 degrees.
e. Porous structure, good resilience, withstands shock and vibrations.

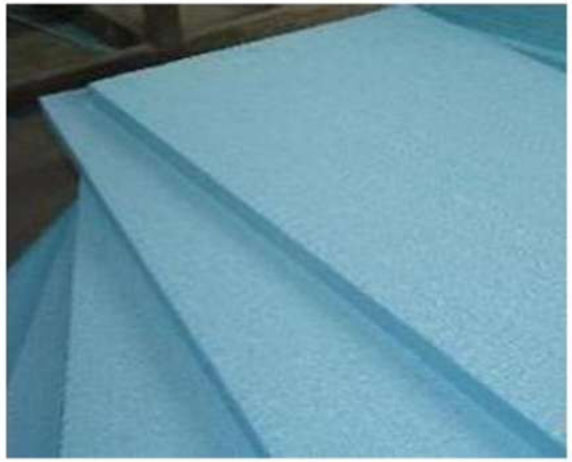


Material display - Thermal insulation, sound insulation and fireproof material

Thermal insulation, sound insulation and fireproof material - external wall thermal insulation and sound insulation ecological board:

The heat and sound insulation ecological boards of the external wall are polystyrene plastic insulation boards which use polystyrene resin as a raw material and other auxiliary materials, and injects a catalyst at the same time through heating and mixing, and then extrudes a formed rigid foam board with perfect closed cells. honeycomb structure.

a. High thermal resistance, structure closed cell rate over 99%, 20mm thick insulation effect is equivalent to 120mm thick cement perlite.
b. High compressive strength and impact resistance.
c. Excellent water repellent and moisture resistance.
d. Good stability and corrosion resistance, no decomposition or mildew, no volatilization of toxic substances.
e. The production process does not produce any industrial pollution and is an environmentally friendly building material.



Material display - Waterproof material

Waterproof material - waterproof and breathable membrane (breathing paper)

The waterproof and breathable membrane is made of polyethylene microporous membrane as the middle layer and the non-woven fabrics on both sides are compositely formed by a hot-melt direct pressure process. The middle layer is the main waterproof layer. The principle is that water vapor is in a gaseous state, and the molecular particles are very small. It can pass through the microporous membrane through the diffusion principle, and a breathable phenomenon occurs. Liquid water or water droplets cannot pass through due to their surface tension so that water penetration can be prevented and creates the waterproofing function.

Material display -Waterproof material

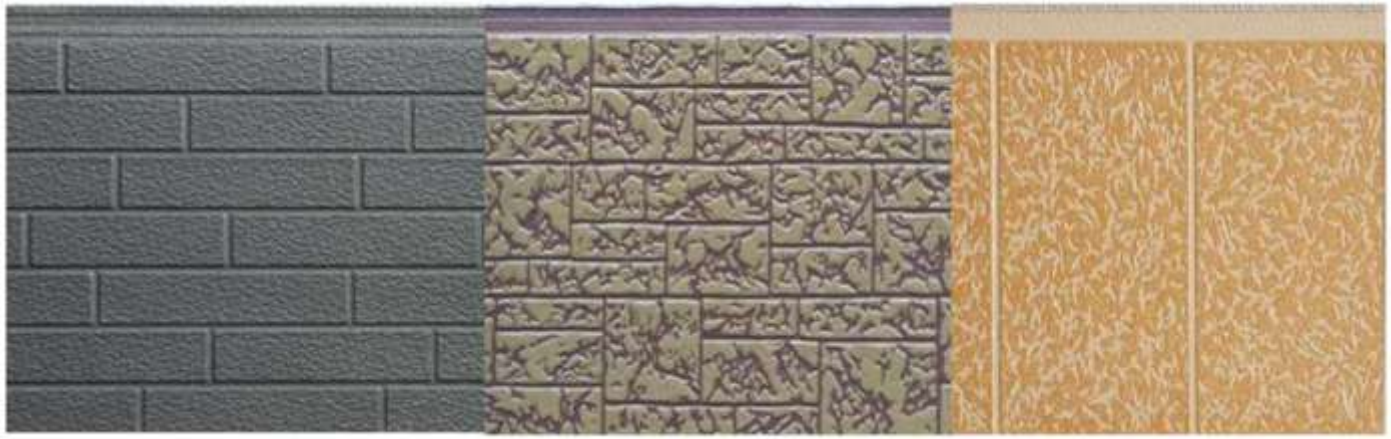
Waterproof material - self-adhesive waterproof membrane:

This material is a self-adhesive waterproof membrane with polymer resin and high-quality asphalt as the base materials, polyethylene film and aluminum foil as the surface material, and a release-adhesive isolation layer. The product has extremely strong bonding performance and self-healing property, and is suitable for construction in both high and low temperature environments.

Material display - Exterior wall decoration material

Exterior wall decoration material - metal carving board

MUHU interior and exterior wall hanging panels integrate thermal insulation and decoration functions and are a new type of exterior wall hanging panel popular in the market in recent years. The surface is a high-quality color embossed metal plate with special coating treatment. The middle layer is a hard high-density polyurethane thermal insulation layer treated with flame retardant and the bottom surface has an aluminum foil protective layer that plays a role of heat insulation and moisture inhibitor.



Material display - Exterior wall decoration material

Exterior wall decoration material - PVC exterior wall hanging board

PVC exterior wall hanging board is an exterior wall panel processed from auxiliary ingredients such as polyvinyl chloride resin and stabilizer. This material offers anti-oxidation/mold-proofing, corrosion resistance, and low pricing, substantial cost and energy savings as well as environmental protection and convenient construction. This board drastically reduces the adverse impact of seasonal and other climatic changes.

Material display - External wall decoration material

External wall decoration material - wood grain cement fiber hanging board

Using cement as the adhesive component and adding an appropriate amount of plant fibers, the appearance of cement fiberboard with wood grain on the surface is strong, natural looking, and beautiful. This boarding has the characteristics of reliable durability, light weight, heat insulation, frost resistance, sound absorption, fire prevention, mildew resistance, and insect/termite resistance.

Material display - Exterior Wall Decoration material

Exterior Wall Decoration material - cement fiber decorative board

With cement as the base material and composite fiber as the reinforcing material, this formula is mixed and processed onto a flat plate, which is then cured under high temperatures and pressure. This product is lightweight, waterproof, mildew-proof, fire resistant, termite-proof, heat-insulating, sound-proof, impact-resistant, acid-alkali-resistant, aging-resistant, frost-resistant, and extremely environmentally friendly. This board is a high-grade exterior wall decoration material integrating functionality and decorative innovations.

Material display - External Wall Decoration Material

External Wall Decoration Material - artificial culture stone

Artificial methods are used to upgrade and reproduce the texture, color and texture of various naturally formed stones, and the effect is very primitive, natural and simple. High-grade artificial cultural stone has the characteristics of environmental protection and energy saving, light texture, rich colors, non-mold and non-combustible, good resistance to thawing, and easy installation.

Material display - Roofing material

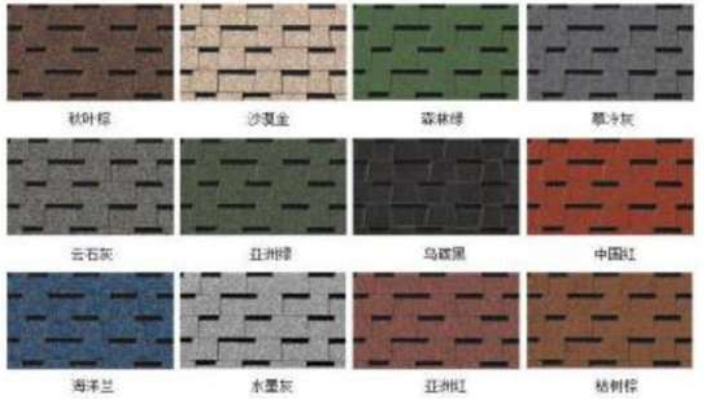
Roofing material - colored stone metal tile

Using galvanized steel plate as the substrate, after the front and rear protective film treatment, the surface layer is made of non-toxic and harmless high-quality adhesive, and then covered with natural colored stones. Lightweight and high strength, firm and durable, easy to install.

Material display - Roofing materials

Roofing materials - asphalt shingles

With glass fiber felt as the matrix, after dipping and coating high-quality asphalt, one side is covered with colored mineral granules and the other side is sprinkled with insulating materials. The shingle is a roofing material with both decorative and waterproof functions excellent rich colors, various forms, and easy construction.



Material display - Roofing material

Roofing material – colored steel profiled tile

The color-coated steel plate is used to roll and cold-bend into various corrugated profiled plates. It has the characteristics of light weight, high strength, rain resistance, long life, rich color, convenient construction, and maintenance-free. It has been widely used in numerous buildings.

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Project Introduction

RFC lightweight wall panels

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Product Introduction

Ordinary cement foamed concrete lightweight partition wall board is made of ordinary Portland cement as the main cementitious material raw material, with anti-crack fiber, waterproof stiffener, quick-setting enhancer, etc. as modified materials, through the self-developed foaming The foam made of agent is produced by physical foaming process equipment and water circulation heat source temperature-controlled hot-pressed steam curing process technology. Applicable to various prefabricated buildings and frame structure components of lightweight partition wall panels, external wall insulation walls, and panels without demolition of hollow floor slabs. The implementation standard is the national JC169-2016 industry standard.

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Features

Four characteristics

Performance improvement Indicators stand out

Cost savings cost-effective

Equipment technology has immeasurable advantages

Flexible factory construction, personalized service

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Main raw material

1.1. Cement

The national standard, Ordinary Portland Cement No. 425, is the cementitious material and is the most common building material.

1.2 Crack-resistant fiber

The anti-cracking fiber can act as a skeleton, increase the strength of the tendons, acid and alkali resistance, and improves the service life of the wallboard. preferably palm fiber

1.3. Water proofing agent

It is mainly composed of sodium silicate unsaturated solution and other materials. The structure of this emulsion is similar to the strong physical and chemical interaction between nano-sized particles and micro-molecules and foamed cement, which inhibits or reduces the pores in cement mortar and prevents the penetration of water. It has strong toughness and bending resistance.

Main raw material

1.4. Quick-setting enhancer

It can effectively improve the hardness of ordinary cement grades, activate the content of active molecules in cement, the initial setting time is three to four hours, the final setting time is six to nine hours, the compressive strength is greater than 3.5MPa in 24 hours, and the compressive strength is 10MPa in 28 days

Ordinary cement quick-setting enhancer can effectively improve the hardness of ordinary cement grades, activate the content of active molecules in cement, the initial setting time is three to four hours, the final setting time is six to nine hours, and the compressive strength is greater than 3.5MPa in 24 hours, 28 The daily compressive strength is 10MPa. The biggest effect is to change Ordinary Portland Cement into quick-setting cement, so that the product can be released quickly, and has the characteristics of fast setting, fast hardening, high viscosity, micro-expansion, small rebound, and high strength in the later stage.

1.5 Foaming agent:

The raw materials of this foaming agent are composed of "animal high protein", "natural resin mixture paste", "waterproofing agent", "chemical auxiliary agent" and so on. The special "foaming agent" for cement synthesized by careful proportioning, high temperature decomposition, purification and boiling. The production cost of the foaming agent is low, the purity of the foaming agent is good, the foaming volume is large, the density is uniform, the strength is high, and the storage time is as long as 6-8 hours. Controlling the surface free performance carrier makes the surface tension of the solution obtain the effect of encapsulating and not dispersing. This high-performance foaming agent won the "Special Gold Award" in China International Patent Brand Expo in 2010.

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Product performance has been improved in an all-round way, and the indicators have highlighted features

- Light product quality: 42 kg per square meter can float on water for a long time
- High fire rating: Fire protection standard A1 level. Fire resistance limit is more than 4 hours
- Good waterproof performance: waterproof agent patent (pure plant extraction)
- Strong sound insulation effect: 42---48 decibels
- High seismic strength: two layers of asbestos mesh cloth are added (after 7-level seismic test)
- High insulation performance: no metal skeleton
- Superb thermal insulation
- Easy installation: It can be cut at will, light in weight and high in installation efficiency.
- Variety of decoration: Decoration does not need to destroy the wall, directly cut and design the initial installation. The wall is tightly combined with the paint mortar tiles, no cracks, no fall, no drums, no interlayers.
- Pipelines are easy to pass through the wall: they can be routed from the upper and lower parts of the wall, and can be placed arbitrarily through the hole in the middle of the wall panel. Without destroying the tension and strength of the wall.
- No discharge of three wastes: no noxious or toxic gas, water or waste residue released.

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Total cost saving, comprehensive cost-effective

15-35%

lower than similar domestic products (delivery price)

Efficient installation can reduce labor costs by

50-200%

It can reduce the cost of the main body by

10-15%

Technical advantages of equipment

The equipment has high degree of

Automation,
low energy consumption
stable performance and long service life

which provide a favorable guarantee for the production of high-quality products.

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Regional coverage for small and medium-sized projects, and personalized services for large-scale projects

On-site factory construction:
flexibly provide services for the project.

Low site requirements:
32 sets occupy an area of 2,000 square meters (with an annual output of 400,000 square meters).

Production environment:
The room temperature is not lower than 10 degrees Celsius to ensure production.

Equipment is extremely mobile:
the equipment can be dismantled and moved to the next site after the end of the project.

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Comparison of similar products

This project uses proprietary foaming technology to produce lightweight partition panels on a large scale, which can be widely used in the exterior walls and roof panels of industrial plants, and the interior partition walls of frame-structure houses, especially to meet the requirements of high fire protection levels. Materials with similar functions mainly include aerated concrete slabs, GRC concrete slabs, etc. The following table compares and analyzes the three slabs.

Type:	Production Process:	Unit Size Investment:	Product Performance:	Cost of Production:	Installation Cost:	Overall Costs:
RFC concrete lightweight partition board	Simple	Small	Pass	Low	Low	Low
ALC aerated concrete slab	Complex	Big	Pass	High	Middle	High
GRC Concrete Hollow Slab	Simple	Middle	Pass	Middle	High	Middle

It can be seen from the above table that the production processes for the product RFC concrete lightweight partition wall panel project is simple. Unit scale investment is small. The product performance is excellent, the overall cost is the very low, and it has excellent promotion possibilities.

03

Product engineering use and installation site

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Product Introduction

MUHU brand machinery and MUHU brand energy-saving and environmentally friendly lightweight partition boards are new products promoted by the Ministry of Housing and Urban-Rural Development. The selection of these new building materials is beneficial to the country, people and enterprises. Saving energy, protecting the environment, reliable products, safe and applicable, have always been our goals. We are willing to cooperate with all people in the industry to achieve sustainable development of our projects.

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GFC light wall panel production machinery and equipment

After 33 years of production experiences, MUHU has created a large group of advanced technology systems including a complete set of automatically managed and produced mechanical equipment, raw material configuration, light wall panel manufacturing, prefabricated building construction and installation technology, just to name a fraction of what has been developed in MUHU R&D facilities.

1. Manufacturing auxiliary machine,
2. Foaming machine,
3. Mixer,
4. Napping machine,
5. Spray release agent machine,
6. Automatic grouting machine,
7. 40 vertical mold wallboard machines,
8. Two-way One set of tube extubation machine,
9. Set of automatic plate ejector, 6 sets of steam curing kettles,
10. Set of hot water boiler and thermal automatic temperature control cycle coagulation promoting system.

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Supporting facilities

1.The distribution power is 60kw,

2.There are two three-ton forklifts.

3.Two 100T cement tanks and one 60T cement tank.

Quantity of raw materials (feeding is based on volumetric weight):

260--360 kg of water,

450--500 kg of Ordinary Portland 425 Cement,

100--150 kg of tailings powder, appropriate amount of foaming foam,

5-6 kg of waterproof toughening agent,

4-5 kg of quick-setting enhancer kg,

anti-crack fiber 15kg.

Production staff

There are 1 production worker in two shifts, 1 manager and 2 technicians, and 18 workers - total of 21 people.

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Production Output

Production of 90 square meters per hour, two shifts 16 hours a day, morning shift from 4:00 to 12:00, evening shift from 16:00 to 0:00. Grinding at work, slabs out, steaming and curing, molding, cleaning

The daily output is 1,420 square meters, the monthly output is 42,000 square meters, and the annual output of wall panels is 450,000 square meters.

03

Features of GFC lightweight wall panels

1. High production efficiency: Ordinary Portland Cement can be changed into quick-setting and quick-drying cement by adding quick-setting enhancer. The compressive strength of the wallboard reaches 5.2MPa.

2. Low production cost: the cost can be 45% lower than that of sulphoaluminate cement and 50% lower than that of magnesium oxychloride cement.

3. It has good acid and alkali resistance, and the waterproof and toughening agent can effectively adjust the acid-base balance in the cement. The hard performance of the wallboard increases the toughness and elasticity, and at the same time improves the durability of the wallboard in the building wall.

4. Good plasticity, can form a protective film on the surface of the partition wall, strengthen the coagulation and stability of micro-foam, and the sound insulation is 48dB.

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Features of GFC lightweight wall panels

5 Waterproof and toughening agent: no moisture absorption, no frost, no halogen return, non-conductive insulation, good durability. The durability and weather resistance test of lightweight partition boards without moisture absorption results in a service life of 60 years above.

6 The quick-setting enhancer can significantly improve the strength and hardness of the wallboard in the foamed concrete. The softening coefficient is high, and the fire resistance performance is greater than 4 hours, which meets the standard for the firewall body board.

7 The partition wall panel of the present invention achieves land saving, water saving, material saving, energy saving, light weight and environmental protection, uses unlimited resource air to replace limited resource sandstone materials, and has no three wastes and harmful gas emissions in the production process.

8 According to the national building inspection report, various performance indicators meet or exceed the requirements of the national JC169-2016 industry standard, especially suitable for high-rise buildings.

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Features of GFC lightweight wall panels

Test report
Product specifications:
length 2950mm × width 600mm × thickness 90mm

No	Test items	standard index	test value	Individual judgment
1	Shock resistance, times	≥5	10 times without cracks	
2	flexural failure load, Board weight multiple	≥1.5	2.5	pass
3	Areal density，kg/㎡	≤90	46.7	pass
4	moisture content，%	≤10	6.1	pass
5	drying shrinkage，mm/m	≤0.6	0.40	pass
6	Hanging force,n	≥1000	1600	pass
7	Air sound insulation,dB	≥35	42	pass
8	radionuclide limit	internal exposure index Ira≤1.0	0.1	pass
		External Exposure Index Ir≤1.0	0.1	pass
9	Compressive strength,MPa	≥3.5	5.2	pass
10	Softening coefficient	≥0.8	0.98	pass
11	Thermal Conductivity	W/(m·K)	0.126	GB/T10294-2008

03

Features of GFC lightweight wall panels

Our company independently researches and develops lightweight wallboard machinery and equipment and high-tech production technology. The lightweight partition wall panels produced by Ordinary 425 Portland Cement foaming have been tested by the National Building Materials Testing Center. The surface density is 52kg and the compressive strength is 5.2, the sound insulation is 46 decibels, the fire resistance limit is more than four hours, there is no harmful gas emission, and the joints will never crack (patented technology). The proportion of wallboard production is 22 parts of cement. Add 11 parts of water. Add 3 parts of anti-crack fiber and additives. Add 65 parts of foaming foam, 3000*600*90=1.8 square meters, and the materials produced by each partition board use 65 parts. .kg of cement (refer to the local cement price) plus wages, water and electricity, foaming agent reinforcement, quick-setting aids, etc. and other production costs total 5 USD per square meter, and cement prices vary in different regions. The real pure Ordinary Portland Cement foam wallboard does not add any lightweight materials and has good affinity. It is not limited by any decoration materials.

Our company produces supporting partition board automation machinery and equipment production line with advanced production technology and 5 invention patents such as foaming agent, cement quick-setting enhancer, waterproof toughening agent, and 23 utility model patent production technologies. The strength and hardness can be adjusted at will to produce The performance parameters of various specifications of hollow wall panels and solid wall panels meet the requirements of the national construction industry standard for lightweight partition walls (JG/T169-2016). We sincerely invite you to join in the joint development of lightweight partition wall panels and long-term strategic cooperation in technology Win-win and common development.

03

300,000 square meters/year quality partition panel production project

Covering an area of

30,011.25 m²

Construction area

5,976 m2

Total investment

$8.5 million

The first phase investment is

$2 million

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Project Description

After years of painstaking research, MUHU has developed an environmentally friendly, energy-saving and light-weight insulation partition board using Ordinary Portland Cement as raw materials, purchased foaming agents, self-made foaming machines and wallboard machines. This new type of environmentally friendly, energy-saving and light-weight thermal insulation partition board has the advantages of environmental protection, heat insulation, sound insulation, high strength, light weight, and fast construction speed. It is an ideal substitute product for solid clay bricks and hollow bricks, and has very broad market prospects. MUHU company plans to mass-produce its own research and development products and put them on the market to meet the market's demand for new wall materials.

03 Construction scale

Land area:

The factory area of this project covers an area of 27,555 m2, and the civil works of the first phase project are shown in Table 1

No	Building name	Building area	Number of floors	Remarks
1	Office building	1,296	3	Brick-concrete structure
2	Partition wall project production workshop	1,836	1	Steel structure, color steel tile, insulation board
3	Raw material warehouse	540	1	Steel structure, color steel tile, insulation board
4	Finished product warehouse	1,800	1	Steel structure, color steel tile, insulation board
5	Staff dormitory	360	1	Brick-concrete structure
6	Guard room	144	1	Brick-concrete structure

Product solutions

Annual production of lightweight partition boards is 300,000 square meters

Specifications are :

3,000mm×600 mm×90 mm;
3,000mm×600 mm×120 mm;
3,000mm×600 mm×200 mm。

Raw materials and energy consumption

See Table 2 for raw material consumption and energy consumption of the project.
Table 2 Project raw material consumption and energy consumption

No	Raw material name	Annual consumption
1	Aluminum sulfate cement	2,700 tons
2	Calcium silicate cement	2,700 tons
3	Strengthening agent (solid)	1,500 tons
4	Glass cloth	1.08 million m2
5	Foaming agent	45 tons
6	Water	6,000 tons

Labor quota and work system:

After the project was put into operation, there were 30 employees, all of whom were workers. 300 days of annual production, 1 shift per day.

Total control indicators:

The domestic sewage discharge of the project is 750t/a, the COD discharge is 0.225t/a, and the NH3-N discharge is 0.026t/a. The proposed values for total control are 0.25t/a and 0.03t/a respectively. The amount of dust discharged into the ambient air by the project is 0.024t/a, and the recommended value for total control is 0.025t/a.

03

RFC Lightweight Partition Board

※ Completely replaces all kinds of blocks in the wall during the construction process. Architectural template. External wall insulation material, double-layer insulation inside and outside, good insulation effect;

※ No construction waste is generated during the construction process, and the construction site is smaller and better organized;

※ The construction period is short, the overall cost performance is high, and the construction is simple. It is flexible in operation and meets the technical requirements of building thermal insulation structure integration.

MUHU Seeking Partnerships

Local Production of RFC Lightweight Partition Board

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Thanks for watching!