



Shang He
山东尚禾

ONE-STOP SERVICE OF ENERGY-SAVING INSULATION SYSTEM

节能保温系统一站式服务



DIRECTORY

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CORPORATE PROFILE

企业篇

COMPANY PROFILE
公司介绍

FUTURE
未来发展

CORPORATE CULTURE
企业文化

COMPANY PROFILE

公司简介



Research and
Development
研发



Production
生产



Sell
销售



Service
服务

Shandong ShangHe New Construction Engineering Co., Ltd. is a comprehensive company focusing on the production of new thermal insulation composite materials, with the goal of leading science and technology, responding to national environmental protection policies, and targeting the domestic and foreign building materials market. The company is a high-tech enterprise engaged in research and development, production, sales and service, providing scientific and complete solutions for the decoration and energy-saving transformation of new and existing buildings. In view of the new trend of building energy conservation at home and abroad, we have cooperated with famous energy-saving experts at home and abroad, introduced advanced technology and equipment from all over the world, developed a series of building exterior wall products, and established an integrated system of building exterior wall energy conservation and decoration. The integrated energy-saving decoration system integrates the functions of decoration, heat preservation, heat insulation, fire protection, rain protection and leakage prevention, integrates the humanistic concept of energy conservation and environmental protection and international fashion design elements, and injects the new concept of "integration of energy conservation and decoration", which greatly meets the energy-saving design requirements of different buildings and conforms to the new trend of the development of energy-saving buildings in China.

山东尚禾经贸有限公司是一家专注于生产新型保温隔热复合材料的综合型公司，目标为科技领先，响应国家环保政策，瞄准国内外建材市场。本公司是一家从事研发、生产、销售及服务为一体的高新科技企业，为新建及现有建筑的装修及节能改造提供科学完整的解决方案。针对国内外建筑节能的新趋势，我们与国内外著名节能专家合作，引进世界各地的先进技术和设备，开发了建筑外墙系列产品，建立了建筑外墙节能与装饰一体化体系。该一体化节能装饰系统集装饰、保温、隔热、防火、防雨、防渗漏功能于一体，融入了节能环保的人文理念和国际时尚设计元素，注入了“节能与装饰一体化”的新理念，极大地满足了不同建筑的节能设计需求，符合当前中国节能建筑发展的新动向。



FUTURE

未来发展

In the future development process, Shanghe will continue to adhere to the people-oriented concept of "employees are close to each other, customers are supreme", rely on the company's excellent production technology, advanced production equipment and process flow for many years, and strive to build an excellent elite team, cultivate outstanding industry talents, so that the company can create new advantages and reach a new level in terms of technological innovation and process quality! High quality and integrity make the company's consistent purpose; Pursuing leadership and development is the company's goal. The company's commitment to product quality and services stems from the sincere cooperation between new and old friends, and work together to move forward!

在未来的发展过程，尚禾将继续秉承“员工至亲、客户至尊”的人本理念，依托公司多年行业过硬的制作技术、先进的生产设备和工艺流程，努力打造优秀的精英团队，培养优秀的行业人才，使公司在技术创新、工艺质量方面再创优势、再上新台阶！优质、诚信使公司一贯宗旨；追求领先、追求发展是公司的目标，本公司对产品质量和各项服务一诺千金，源于新老朋友精诚合作，携手向前！



OUR PURPOSE

公司宗旨

Creating Value for Customers, Creating Benefits for Society and Creating Value for Employees

为客户创造价值 / 为社会创造效益 / 为员工创造价值

Creating Opportunities for Employees

The development of society comes from the development of people; the development of enterprises comes from the development of employees; therefore, enterprises have the responsibility to create development opportunities for employees.

Create value for customers

Customer value is the direction of all our actions and the only criterion to measure the results of implementation; we should measure our success by the success of our customers, customers. It's the only criterion for us to think about problems.

Creating Benefits for Society

Social development and the development of enterprises complement each other, so we are obliged to undertake the responsibility of creating benefits for society.

为员工创造机会

社会的发展，来自于人的发展；企业的发展，来自于员工的发展；因此企业有责任为员工创造发展的机会。

为客户创造价值：

客户价值是我们一切行动的方向，是衡量执行结果的唯一标准；我们要以客户的成功衡量我们的成功，客户是我们思考问题的唯一标准。

为社会创造效益：

社会的发展与企业的发展相辅相成，因此我们有义务承担为社会创造效益的责任。

OUR MISSION

企业使命

Adhering to Craftsmanship and Creating Excellent Works

秉承匠心工艺 打造精品工程

We will build a system service provider with construction management as the core and linked to the future building energy conservation field in China. We will persist in taking building energy conservation and thermal insulation as our own responsibility, benefit mankind, serve the society and operate sustainably.

打造以施工管理为核心、挂靠未来中国建筑节能领域系统服务商。坚持以建筑节能保温为己任，造福人类服务社会，永续经营。

OUR VISION

企业愿景

To be the most respectable national thermal insulation brand

成为值得尊敬的民族保温品牌

OUR VISION

企业价值观

First to be a person of honest and trustworthy

Always respect people and trust in team strength

Customers are the most important to us and we will offer our best service

首先是 - 个正直诚信的人

永远尊重人 信赖团队的力量

客户对我们是最重要的，奉献最好的服务

QUALIFICATION HONOR

资质荣誉



Please contact us
for more certificate
details

查看更多证书详情
请联系我们



PRODUCTS PROFILE 产品篇



**NEW-MODEL FIREPROOF
ROCKWOOL/GLASSWOOL
SANDWICH PANEL**
新型防火岩棉
玻璃丝棉夹芯板系列

**POLYURETHANE
SANDWICH PANEL SERIES**
聚氨酯夹芯板系列

**COLD STORAGE
SANDWICH PANEL SERIES**
聚氨酯夹芯板冷库系列

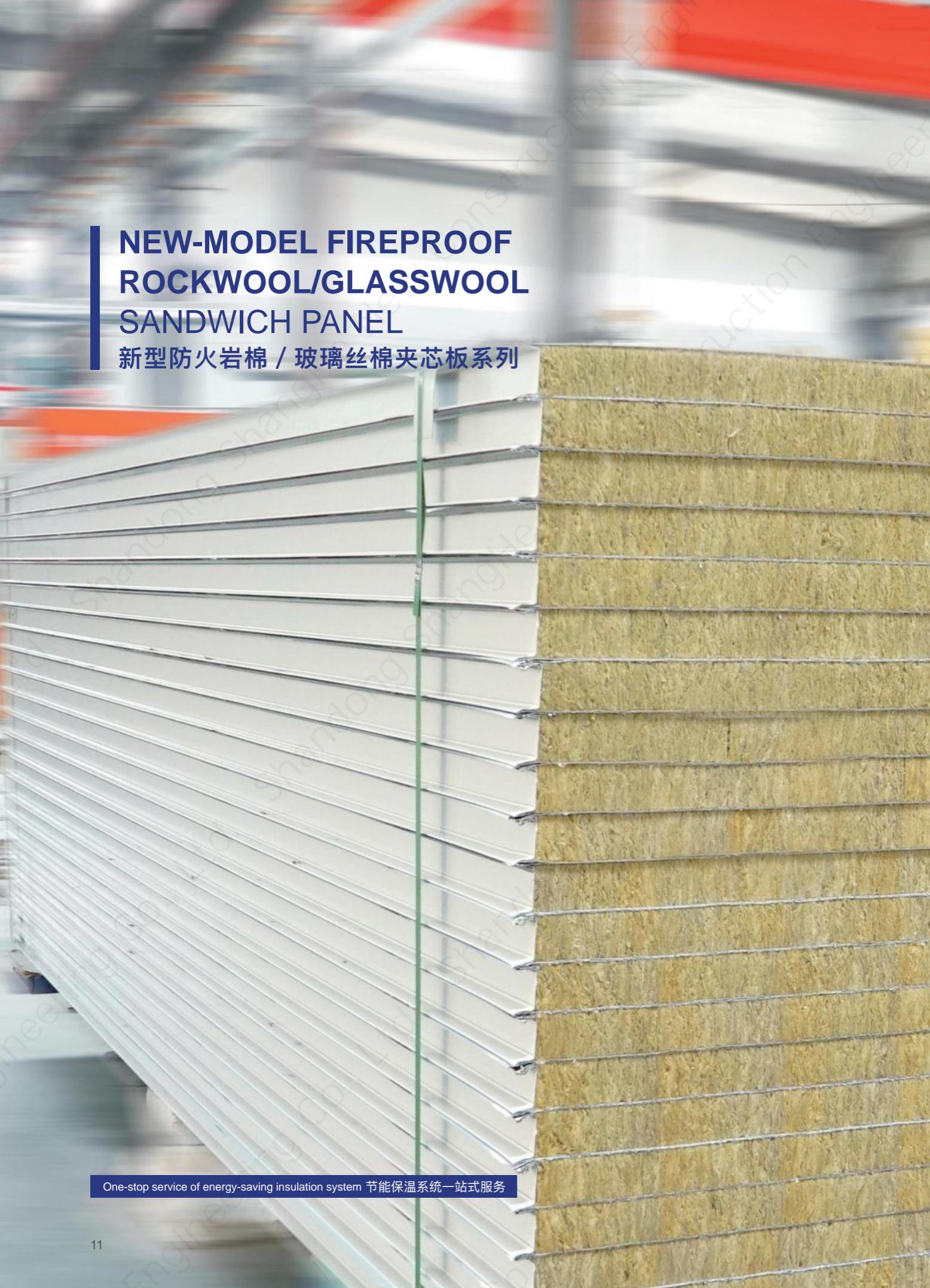
**CLEAN
SANDWICH PANEL SERIES**
夹芯板洁净板系列

ACTIVITY ROOM SERIES
活动房系列

CONTAINER ROOM SERIES
集装箱房系列

**STEEL STRUCTURE
PRODUCT SERIES**
钢结构产品系列

VILLA HOUSE SERIES
别墅房系列



NEW-MODEL FIREPROOF ROCKWOOL/GLASSWOOL SANDWICH PANEL

新型防火岩棉 / 玻璃丝棉夹芯板系列

One-stop service of energy-saving insulation system 节能保温系统一站式服务

New-model fireproof rockwool/glasswool sandwich panel

FIREPROOF ROCK WOOL/GLASS WOOL WALL SANDWICH PANEL

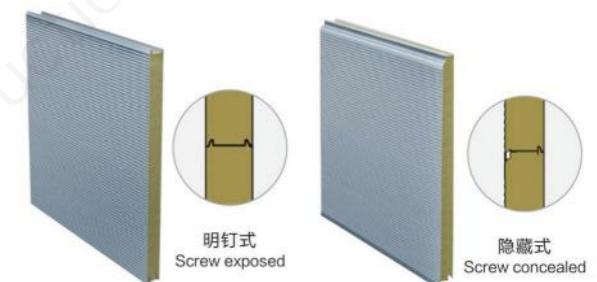
防火岩棉 / 玻璃丝棉墙面夹芯板



Parameter description 参数描述	
Core Material Type 芯材名称	Polyurethane edge-sealing glass wool 聚氨酯封边玻璃丝棉 Polyurethane edge sealing rock wool 聚氨酯封边岩棉
Thermal Conductivity 导热系数	0.035–0.041w/m.k 0.037–0.043w/m.k
Core Thickness 芯材厚度	50mm/75mm/100mm/120mm/150mm/200mm etc.
Thickness of steel plate 钢板厚度	0.4–0.8mm
Color 常备颜色	White, silver, navy, etc. Acceptable customization 白灰、银色, 海军蓝等可接受私人订制
Surface pattern 表面花纹	Plain, corrugated, pressed and embossed 普通、波纹、压制和压花
Combustibility 燃烧性能	Class A incombustible A 级不燃
Heat Transfer Coefficient 保温性能	Heat transfer coefficient ≤0.04W(M.K) 传热系数≤ 0.04W(M.K)
Core density 芯材密度	100–140KG/m ³
Noise reduction performance 降噪性能	Average sound insulation capacity is ≥37dB(50mm) 平均隔音量≥ 37dB(50mm)
Working temperature 工作温度	-268° C–700° C

APPLICATION AREA 应用领域

Airport terminal, high-speed railway station, machine room
机场航站楼、高铁站、机房
Theater and conference hall
剧院、会议厅
Industrial plants with excessive noise
噪声超标准的工业厂房
Building space with sound absorption and noise reduction
吸音降噪的建筑空间
Sound-absorbing wall panels
吸声墙板
ceiling panels for large public buildings
大型公共建筑的吸声墙板
Tianfu ceiling panels
天花吊顶板



6 ADVANTAGE

大优势



FIRE RETARDANT 防火阻燃

Rock wool is a Class A incombustible material with high temperature resistance and melting point higher than 1000 °C. It will not elongate, shrink or deform in fire. It will not release substances and gases harmful to the environment.

岩棉为A级不燃材料，耐高温，熔点高于1000°C，在火灾中不会伸长、收缩或变形。不会释放有害环境的物质和气体。



MOISTURE RESISTANCE 抗潮湿

The volume moisture absorption of rock wool is less than 0.2% in the environment with high relative humidity. According to ASTM C1104 method, the mass moisture absorption rate is less than 1%.

岩棉在相对湿度很大的环境下，体积吸湿率小于0.2%；按ASTM C1104或方法测试，质量吸湿率小于1%。



HEAT PRESERVATION AND ENERGY SAVING 保温节能

Rock wool has low thermal conductivity ($\lambda=0.043\text{ W/m.k}$) and excellent thermal insulation effect.

岩棉导热系数低 ($\lambda=0.043\text{W/m.k}$)，具有极佳的保温效果。



GOOD WATER TIGHTNESS/ AIR TIGHTNESS 水密性 / 气密性好

The unique inlaid joint between plates prevents water intrusion. The end connection of the plate is sealed internally to maintain good air tightness.

板与板之间独特的嵌合式节点，阻止了水的侵入；板的端部连接处，内部经封闭处理，保持良好的气密性。



NOISE REDUCTION 吸音降噪

Rock wool is an ideal sound insulation material, with a large number of long and thin fibers forming a porous structure. The sound insulation is $\geq 30\text{dB}$, effectively reducing the external noise.

岩棉是理想的隔音材料，具有大量的细长纤维形成了多孔结构，隔声量 $\geq 30\text{dB}$ ，有效降低外界噪声的干扰。



DURABLE 坚固耐用

The water-repellent rock wool is selected, with a water-repellent rate of more than 98%, supplemented by rigid foaming polyurethane on both sides of the groove, to enhance the overall strength and make the building more durable and stable.

选用憎水岩棉，憎水率大于98%，辅以企口两侧硬质发泡聚氨酯填充，增强整体强度，令建筑更加持久稳固。

A VARIETY OF LAYOUT EFFECTS ARE OPTIONAL 多种版面效果可选



V8 corrugated panel
V8 波纹

Wave effect panel
水波纹

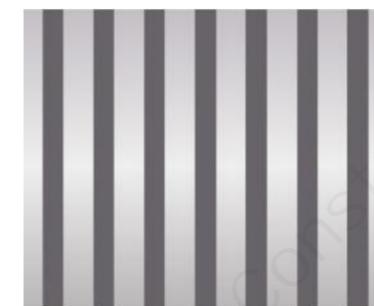
Ribbing effect panel
平直压筋

Flat effect panel
光面纯平

Orange grain pattern panel
桔纹压花

Gorgeous and colorful patterns panel
丽彩压花

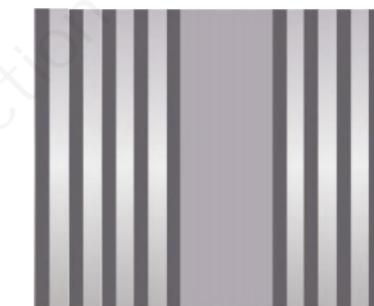
SMALL RIPPLE 推荐版型 - 小波纹



Integrating three-dimensional sense and elegant decorative effect, the gloss, chroma and brightness of the wall produce bright and dark stripes with different light angles and positions.

集立体感与优雅装饰效果于一体，墙面光泽、色度、亮度随光线角度与位置不同产生鲜明的明暗条纹。

MIDDLE GROOVE 推荐版型 - 中凹槽



The groove design in the middle of the board shape allows the 1000 mm wide wall panel to show two 500mm visual effects, and is equipped with elegant small ripples, making the building more layered and textured.

板型中间的凹槽设计，能让1000毫米宽的墙板展现出2个500毫米的视觉效果，并配有优雅的小波纹，使建筑物更具有层次感和质感。

PURE FLAT 特殊版型 - 纯平



A model of purity and elegance, the gloss, chroma, and brightness of the wall produce unique visual changes with different light angles and positions.

纯净优雅的典范之作，墙面光泽、色度、亮度随光线角度与位置不同产生独特的视觉变化。



FIREPROOF ROCK WOOL/GLASS WOOL ROOF SANDWICH PANEL 防火岩棉 / 玻璃丝棉屋面夹芯板

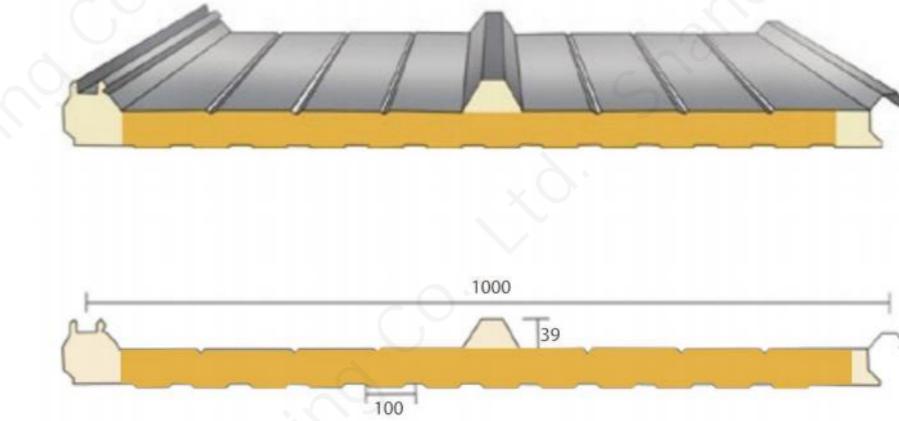
Parameter description 参数描述		
Inner core thickness 内芯厚度	50mm/75mm/100mm/120mm/150mm/200mm ect.	
Steel thickness 钢材厚度	0.4-0.8mm	
Colour 常备颜色	White, silver, navy, etc. Acceptable customization 白灰、银色, 海军蓝等可接受私人订制	
Recommended coating 推荐涂层	Coating PVDF, SMP coating, HDP coating, polyester PE coating, etc 氟碳涂层 PVDF、SMP 涂层、HDP 涂层、聚酯 PE 涂层等	
Core Material Type 芯材名称	Polyurethane edge-sealing glass wool 聚氨酯封边玻璃丝棉	Polyurethane edge sealing rock wool 聚氨酯封边岩棉
Thermal Conductivity 导热系数	0.035-0.041w/m.k	0.037-0.043w/m.k

CONCEALED FASTENER FIXING DETAIL 暗钉安装节点示意图



1) with PIR side sealing/without PIR side sealing (see figure 1)
1) 两侧聚氨酯侧封 / 岩棉芯材可无聚氨酯侧封 (如图一);

2) Ronperforation liner(see figure 2)
2) 屋面内板可加工冲孔吸音吊顶板 (如图二) .



PRODUCT ADVANTAGES 产品优点

· Energy conservation and thermal insulation

The thermal insulation performance is superior, and the thermal insulation effect of the same thickness is twice that of the EPS board.

· Flame retardant and fireproof

The product has passed the inspection of the National Center for Quality Supervision of Fixed Fire Extinguishing Systems and Fire-resistant Components, and the combustion level has reached the GB8624 B2 standard.

· Airtight sound insulation

It has good sound absorption and can reduce the sound caused by rain, ice and thunder.

· Waterproof and rust-proof

Large span, fast drainage and good waterproof effect; The screws are hidden, not easy to rust, and prolong the service life of the plate.

· Beautiful and economical

Beautiful appearance and rich colors; Reduce material loss and save construction time and engineering costs.

· 节能保温

保温隔热性能优越, 同等厚度保温效果是 EPS 板的 2 倍。

· 阻燃防火

产品已经通过《国家固定灭火系统和耐火构件质量监督中心检验》, 燃烧等级达到 GB8624 B2 级标准。

· 气密隔音

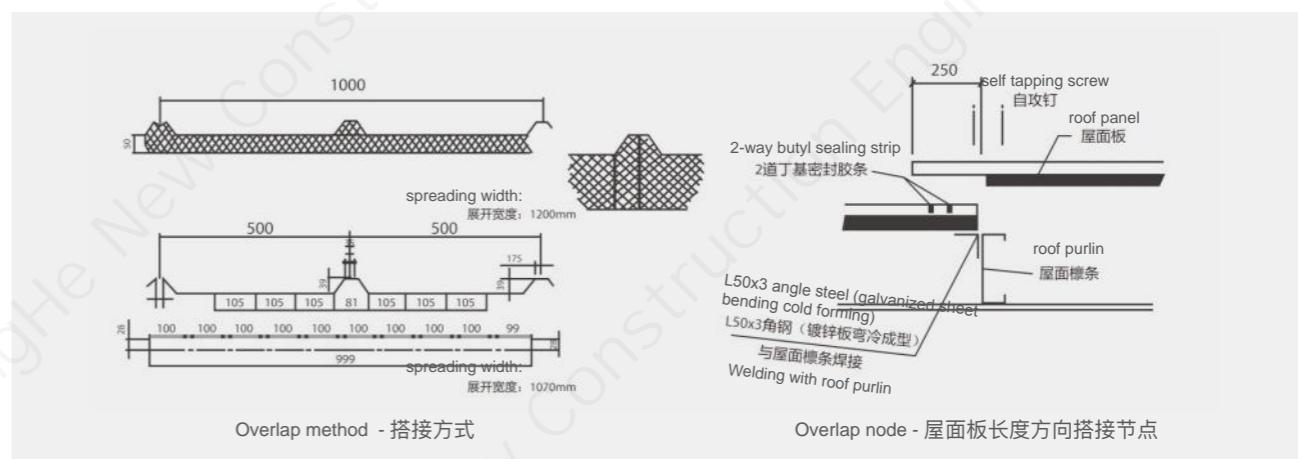
吸音性好, 对雨水、冰雷等冲击而引起的声响有消减作用。

· 防水防锈

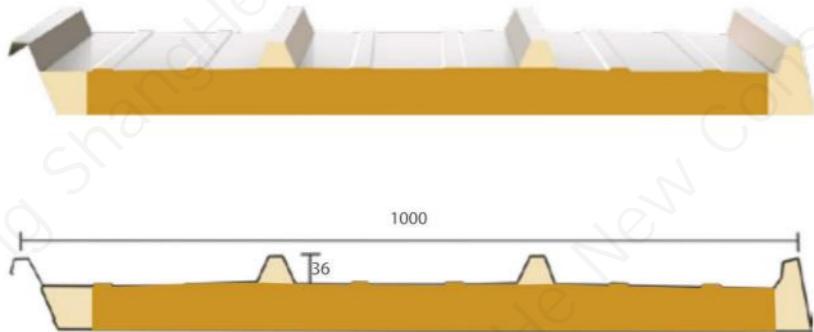
跨度大, 排水快, 防水效果好; 螺钉隐藏, 不易锈蚀, 延长板材使用寿命。

· 美观经济

外形美观, 色彩丰富; 减少材料损耗, 节省施工时间及工程费用。



**FIREPROOF ROCK WOOL/GLASS WOOL
ROOF SANDWICH PANEL**
防火岩棉 / 玻璃丝棉屋面夹芯板



PRODUCT ADVANTAGES
产品优点

Waterproof diversion

The unique waterproof diversion design can reduce the water in the plate area.

Corrosion resistance

Aluminum foil can be used instead of color steel plate to improve the high temperature and corrosion resistance of the product.

The flat surface is firm

Four-wave corrugated to increase the firmness of the board.

Reasonable lap joint

The bevel design at the small overlapping edge is simple and reasonable.

Beautiful and economical

Beautiful appearance and rich colors; Reduce material loss and save construction time and engineering costs.

防水分流

独特的防水分流设计，可减少板面积水。

耐腐蚀性

可采用铝箔代替彩钢板，提高产品的耐高温和耐腐蚀性。

板面坚固

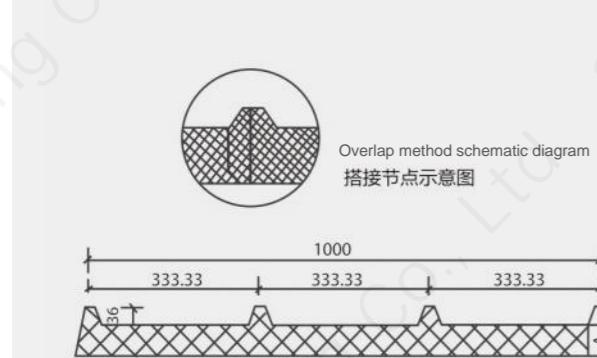
四波瓦楞，增加板面的坚固度。

搭接合理

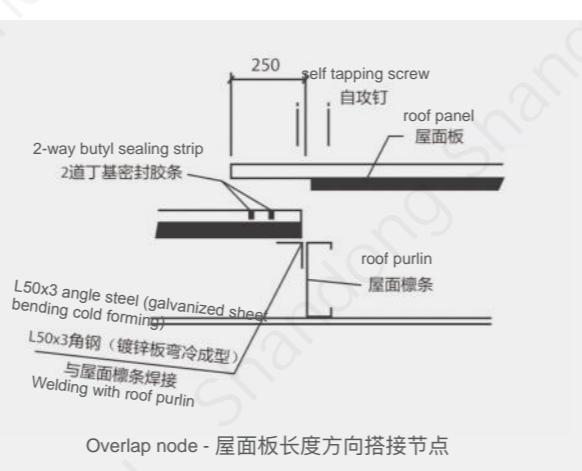
搭接小边处斜面设计简洁合理。

美观经济

外形美观，色彩丰富；减少材料损耗，节省施工时间及工程费用。



Overlap method schematic diagram
搭接节点示意图



Overlap method - 搭接方式

Overlap node - 屋面板长度方向搭接节点



**CORE MATERIAL INDEX NEW MODEL FIREPROOF
ROCKWOOL SANDWICH PANEL**
新型防火岩棉夹芯板指标

Properties 性能	Unit 单位	Density≥100kg/m³ 密度	Density≥120kg/m³ 密度	Specification 标准≥ d12
Compressive strength 抗压强度	kpa	85	105	En826
shear strength 剪切强度	kpa	60	80	En12090
Tensile strength 抗拉强度	kpa	170	220	En1607
Slag ball content 渣球含量	%	<5(Size of coarse slag ball 粗渣球尺寸 >0.25mm) <30(Size of fine slag ball 粗渣球尺寸 >63μm)		ASTM C1335 ASTM C1335
Thermal conductivity of rockwool panel (average temperature 20°C) 岩棉板的导热系数 (平均温度 20°C)	w/mk	0.038		GB/T 10295 ASTM C518 EN12667
fireproof rating 防火性能	—	Noninflammable material/ 不燃性材料 A reaction to fire 对火反应 A 级		EN ISO 1182 GB/T 5464 EN1350-1 GB 8624
Fire-resistant limit (FRL) 耐火极限	%	According to the structure and thickness of sandwich panel, FRL is between 30mins and 240mins. 根据夹芯板的构造和厚度不同，耐火极限 30-240 分钟不等		
Hygroscopicity(weight ratio) 吸湿率 (重量化)	%	<1		ASIM C1104 GB/T 5480.7
Hydrophobicity(specific to hydrophobic products) 憎水率 (针对憎水性产品)	%	≥ 98		GB 10299
Ageina and expansion rate 老化膨胀率	%	≤5(thickness change rate after 24 hour under the state of 65°C) ≤ 5(在温度 65°C 和相对湿度 ≥ 95% 条件下 24 小时后的厚度变化率)		prEN14509
Delting temperature 熔化温度	°C	>1000		—
Fiber diameter 纤维直径	μm	≤ 7		

* Note: usually the material with low thermal conductivity is regarded as thermal insulation material (it is stipulated that all the materials with a thermal conductivity no more than 0.12W/(m.K) when the temperature is lower than 350°C called thermal insulation materials in national standard) and the materials with a thermal conductivity less than 0.05w/m.K is named high-efficient thermal insulation material.

* 注：通常把导热系数较低的材料称为保温材料（我国国家标准规定，凡平均温度不高于 350°C 时导热系数不大于 0.12W/(m.K) 的材料称为保温材料），而把导热系数在 0.05w/m.K 以下的材料称为高效保温材料。

TECHNICAL PARAMETERS NEW MODEL FIREPROOF ROCKWOOL SANDWICH PANEL
(the value in the following table is calculated on the basis of rockwool bulk weight of 120kg/m³ 0.6mm outer steel sheet and 0.5mm inner steel sheet.)
新型防火岩棉夹芯板技术参数 (下表计算取岩棉容重 120kg/m³, 外钢板 0.6mm, 内钢板 0.5mm.)

Allowable vertical load and thermal conductivity of new model fireproof rockwool sandwich wall panel(allowable deflection f≤L/200).
新型防火岩棉夹芯板墙面板允许使用跨距及传热系数 (允许变形 f ≤ L/200)

Thickness of panel (mm) 板厚	Heat Conductivity(W/M ² K) 传热系数	Weight(kg) 重量	Load capacity (P=KN/m ²) 载荷	0.60	0.80	1.00	1.20	1.50
50	0.75	15.53	L(m)	3.66	3.13	2.75	2.46	2.12
75	0.53	18.37	L(m)	4.90	4.22	3.73	3.35	2.91
100	0.41	21.21	L(m)	5.99	5.17	4.58	4.12	3.59
150	0.31	26.88	L(m)	7.82	6.75	5.98	5.37	4.68

Allowable vertical load and thermal conductivity of new model fireproof rockwool sandwich roof panel(allowable deflection f≤L/240).
新型防火岩棉夹芯板屋面板允许使用跨距及传热系数 (允许变形 f ≤ L/240)

Thickness of panel (mm) 板厚	Heat Conductivity(W/M ² K) 传热系数	Weight(kg) 重量	Load capacity (P=KN/m ²) 载荷	0.60	0.80	1.00	1.20	1.50
50	0.75	15.75	L(m)	3.78	3.13	3.31	2.98	2.41
75	0.53	18.68	L(m)	4.83	4.21	4.21	3.76	3.01
100	0.41	21.62	L(m)	5.77	5.02	5.02	4.47	3.55
150	0.31	27.51	L(m)	7.53	6.54	6.54	5.82	4.61



NEW PATTERN GLASSWOOL CORE MATERIAL INDEX
新型玻璃丝棉芯材指标

Properties 性能	Test standard 测试标准	Test results 测试结果
Fiber diameter(μm) 纤度直径	GB/T5480.4	5.0–7.0
Slag ball content (%) 渣球含量	GB/T5480.4	0
Combustibility rating 燃烧性能级别	GB5464	Grade A(incombustible material) A 级 (不燃材料)
Moisture content(%) 含水率	GB/T13350	0.4
Thermal conductivity (w/m.K) 导热系数 (The average test temperature as 24°C) 平均测试温度 24°C	GB/T10295	0.031–0.036
Noise reduction coefficient(NRC) 降噪系数	JC/1469	0.7
Sound reduction index (Rw) 降音量	GBJ75–84	≤ 34



Allowable vertical load and thermal conductivity of new model fireproof glasswool sandwich wall panel(allowable deflection f≤L/200).
新型防火玻璃丝棉夹芯板墙面板允许使用跨距及传热系数 (允许变形 f ≤ L/200)

Thickness of panel (mm) 板厚	Heat Conductivity(W/M ² K) 传热系数	Weight(kg) 重量	Load capacity (P=KN/m ²) 载荷	0.60	0.80	1.00	1.20	1.50
50	0.69	12.95	L(m)	3.74	3.23	2.86	2.57	2.23
75	0.47	14.50	L(m)	5.01	4.34	3.86	3.48	3.05
100	0.36	16.04	L(m)	6.12	5.32	4.73	4.28	3.75
150	0.33	19.14	L(m)	8.00	6.94	6.18	5.58	4.89

Allowable vertical load and thermal conductivity of new model fireproof rockwool sandwich roof panel(allowable deflection f≤L/240).
新型防火玻璃丝棉夹芯板屋面板允许使用跨距及传热系数 (允许变形 f ≤ L/240)

Thickness of panel (mm) 板厚	Heat Conductivity(W/M ² K) 传热系数	Weight(kg) 重量	Load capacity (P=KN/m ²) 载荷	0.60	0.80	1.00	1.20	1.50
50	0.69	13.10	L(m)	3.84	3.38	3.05	2.79	2.49
75	0.47	14.73	L(m)	4.93	4.31	3.87	3.52	3.12
100	0.36	16.36	L(m)	5.89	5.15	4.60	4.18	3.69
150	0.33	19.61	L(m)	7.69	6.71	6.00	5.44	4.80

* Note: the value in the above table calculated on the basis of glasswool density of 64kg/m³, 0.6mm outer steel sheet and 0.5mm inner steel sheet.
* 注: 上表计算取玻璃丝棉容重 64kg/m³. 外钢板 0.6mm. 内钢板 0.5mm



POLYURETHANE SANDWICH PANEL SERIES

聚氨酯夹芯板系列

One-stop service of energy-saving insulation system 节能保温系统一站式服务

Polyurethane sandwich panel series

INSULATED POLYURETHANE SANDWICH WALL PANEL SYSTEM

聚氨酯墙面板夹芯板系统



PRODUCT ADVANTAGES

产品优势

- Concealed nail connection, no exposed screws on the surface, and the building wall is beautiful and smooth.
- Open nail connection, easy installation
- Extremely high flexural bearing capacity, excellent mechanical properties of the wall, reducing the dependence on auxiliary steel structures.
- Excellent thermal insulation performance reduces the cost of indoor air conditioning devices
- Various appearance effects (water ripple, plain, embossed, square wave) are available for users to choose, and the wall is beautiful

- 暗钉连接，表面无外露螺钉，建筑墙体优美流畅。
- 明钉连接，安装方便
- 极高抗弯承载力，墙体力学性能优越，减少对辅助钢结构的依赖。
- 保温性能卓越，减少对建筑室内空调装置的费用
- 多种外观效果（水波纹，纯平，浮雕，方波）供用户选择，墙面美观

Parameter description 参数描述

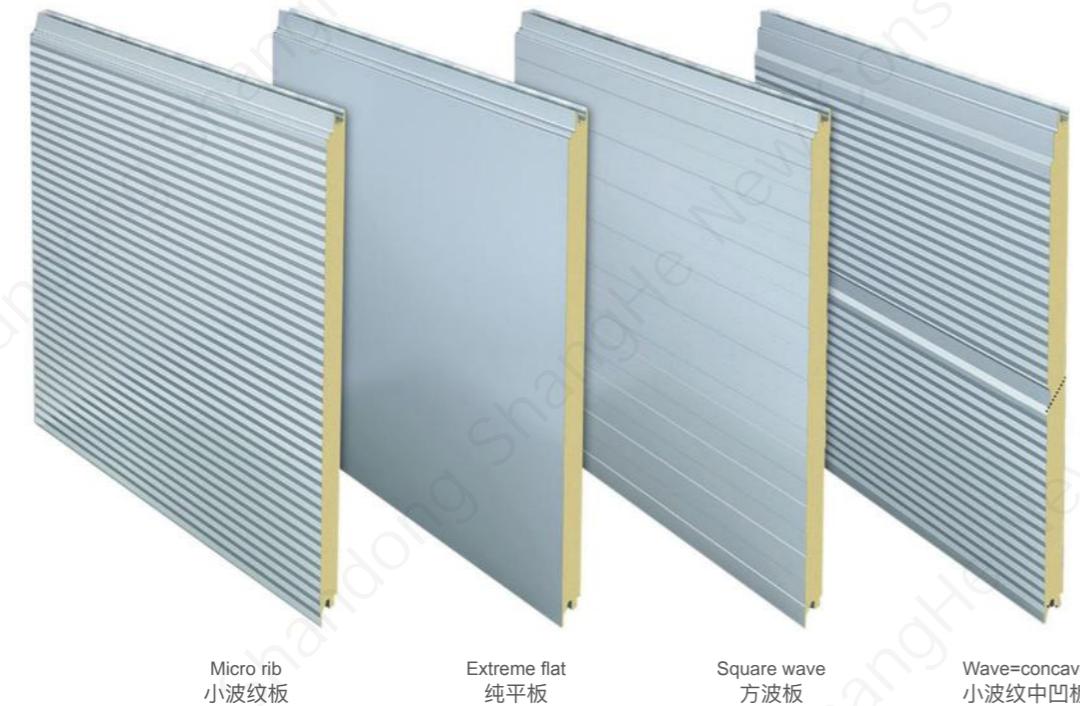
Core Material Type 芯材名称	Polyurethane 聚氨酯
Core Thickness 芯材厚度	50mm/75mm/100mm/120mm/150mm/200mm ect.
Thickness of steel plate 钢板厚度	0.4-0.8mm
Color 常备颜色	White, silver, navy, etc. Acceptable customization 白灰、银色，海军蓝等可接受私人订制
Surface pattern 表面花纹	Plain, corrugated, pressed and embossed 普通、波纹、压制和压花
Installation mode 安装模式	Horizontal and vertical 水平和垂直
Polyurethane Density 聚氨酯密度	$\geq 40+2\text{kg/m}^3$
Bonding strength 粘接强度	$\geq 0.1\text{MPa}$
Thermal conductivity 导热系数	$\leq 0.024\text{W/m.K}$
Compressive strength 抗压强度	$\geq 160\text{kPa}$

According to the authoritative test conducted by the National Building Materials Testing Center, the combustion performance of Shanghe 100mm thick polyurethane energy-saving sandwich panel reached B1.

Test basis: national standard Classification of Combustion Performance of Building Materials and Products GB8624-2012

经国家建筑材料测试中心权威测试,尚禾100mm厚聚氨酯节能夹芯板燃烧性能达B1级。

检测依据:国家标《建筑材料及制品燃烧性能分级》GB8624-2012



Micro rib
小波纹板

Extreme flat
纯平板

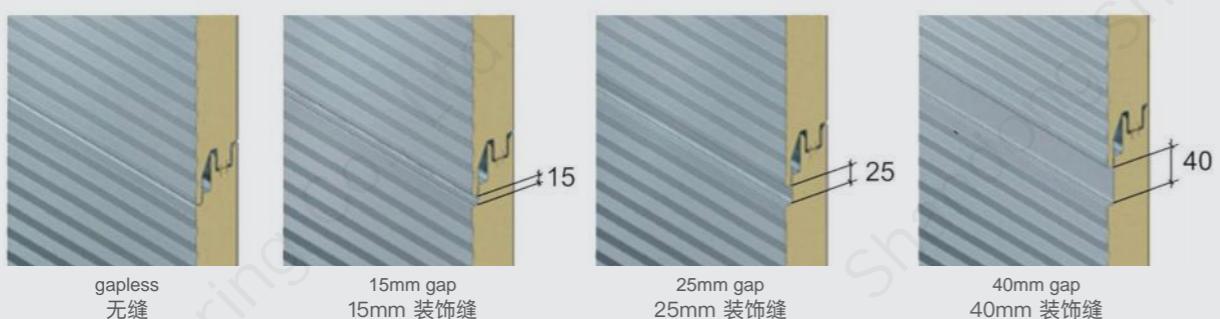
Square wave
方波板

Wave=concave
小波纹中凹板

Surface appearance:
extreme flat,square wave,water wave,wave concaved,three-concave square
wave, and so on.

Effective width:1000mm

Decorative gap:
装饰缝:



gapless
无缝

15mm gap
15mm 装饰缝

25mm gap
25mm 装饰缝

40mm gap
40mm 装饰缝

INSULATED POLYURETHANE SANDWICH ROOF PANEL SYSTEM 聚氨酯屋面板夹芯板系统



APPEARANCE POLYURETHANE ENERGY-SAVING ROOF PANEL 聚氨酯节能屋面板效果

It is a leakage and cold bridge proofing roof panel system with great bearing capacity. It is preferred for the roofs of high-end buildings

防渗透、防冷桥、高承载力的屋面板材系统。高端建筑屋面优选建材

Parameter description 参数描述		
Core Material Type 芯材名称	Polyurethane 聚氨酯	
Thickness of steel plate 钢板厚度	0.4-0.8mm	
Density of core material 芯材容重	40kg/m ³	
Height of major rib 波高	40mm	
Core Thickness 芯材厚度	(50-150)mm	
Effective width 有效宽度	1000mm	
Color 常备颜色	White, silver, navy, etc. Acceptable customization! 白灰、银色, 海军蓝等可接受私人订制	
Heat insulating core material 保温材料	PUR/PIR	
Coating 涂层	PE coating, SMP coating, HDF coating, PVDF coating, etc PE 涂层, SMP 涂层, HDF 涂层, PVDF 涂层等	
Plating 镀层	Hot dip zinc coated, hot dip aluminum-zinc coated 热镀锌, 镀铝锌	

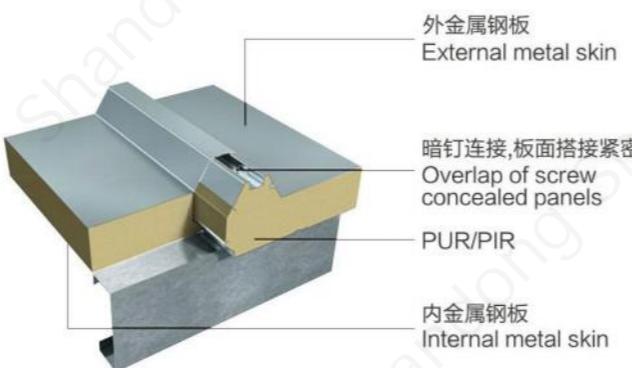


PRODUCT ADVANTAGES

产品优势

The polyurethane roof panel is connected with concealed nails, and the panel surface is closely lapped; Unique waterproof trough design can effectively prevent rainwater infiltration and avoid cold bridge phenomenon; The 40mm slope height greatly improves the bearing capacity of the roof slab. While ensuring the thermal insulation effect of the building, it can effectively reduce the building cost of customers, and the minimum roof slope can reach 3%; Effective width: 1000mm; Available thickness: 50mm, 75mm, 100mm, 120mm, 150mm

聚氨酯屋面板采用暗钉连接，板面搭接紧密；
独特的防水槽设计，有效防止雨水渗透，并避免了冷桥现象；
40mm 坡度高度，极大提高屋面板承载力。在确保建筑物保温效果的同时，有效降低客户建筑成本，屋面坡度最低可达 3%；
有效宽度：1000mm；
可生产厚度：50mm,75mm,100mm,120mm,150mm.



SCREW CONCEALED
JOINT DETAIL
暗钉安装节点示意图

Allowable vertical load and thermal performance polyurethane sandwich wall panel
(allowable (allowable deflection $f \leq L/200$)
聚氨酯夹芯板墙面板允许使用跨度及传热系数 (允许变形 $f \leq L/200$)

Thickness of panel (mm) 板厚	Heat Conductivity(W/M ² K) 传热系数	Weight(kg) 重量	Load capacity (P=KN/m ²) 载荷	0.60	0.80	1.00	1.20	1.50
50	0.31	10.06	L(m)	3.52	3.04	2.69	2.42	2.11
75	0.21	11.06	L(m)	4.71	4.09	3.64	3.29	2.89
100	0.19	12.05	L(m)	5.76	5.02	4.47	4.05	3.56
120	0.16	12.84	L(m)	6.53	5.68	5.07	4.60	4.04
150	0.11	14.04	L(m)	7.56	6.58	5.87	5.32	4.68

Allowable vertical load and thermal performance polyurethane sandwich roof panel
(allowable (allowable deflection $f \leq L/240$)
聚氨酯夹芯板屋面板允许使用跨度及传热系数 (允许变形 $f \leq L/240$)

Thickness of panel (mm) 板厚	Heat Conductivity(W/M ² K) 传热系数	Weight(kg) 重量	Load capacity (P=KN/m ²) 载荷	0.60	0.80	1.00	1.20	1.50
30	0.32	9.32	L(m)	2.60	2.30	2.08	1.91	1.72
50	0.31	10.15	L(m)	3.59	3.17	2.85	2.61	2.33
75	0.21	11.18	L(m)	4.64	4.07	3.66	3.34	2.96
100	0.19	12.22	L(m)	5.57	4.88	4.38	3.99	3.53
120	0.16	13.05	L(m)	6.28	5.49	4.92	4.48	3.97
150	0.11	14.30	L(m)	7.30	6.39	5.73	5.22	4.62

Note : 0.5mm out steel sheet and 0.4mm inner steel sheet.
* 注 : 外钢板 0.5mm, 内钢板 0.4mm;





Cold Storage sandwich panel series

PRODUCT ADVANTAGES

产品优势

- The concave-convex groove structure improves the insulation and air tightness at the joint of the plate, and is specially designed for the cold room and cold storage
- The plate is uniform and stable, with excellent thermal insulation and waterproof performance
- With light weight and beautiful appearance, it can effectively solve the temperature difference in cold storage industry
- Within a certain module, the library body can change freely in three directions of length, width and height, and can be expanded or reduced as needed. The assembly board can also be disassembled and reassembled in different places, which is easy and fast to install
- 凹凸槽结构，提高了板材接缝处绝缘气密性，专为冷藏室、冷库设计
- 板材均匀稳固，隔热性能、防水性能极佳
- 自重轻，外观优美，有效解决冷藏工业温差
- 在一定的模数内，库体可在长、宽、高三个方向自由变化，能够依需要扩大或者缩小，也可将拼装板拆开，异地再装，安装简易快捷



Profile of polyurethane energy-saving refrigerator sandwich panel
聚氨酯冷库板效果图

SMALL RIPPLE

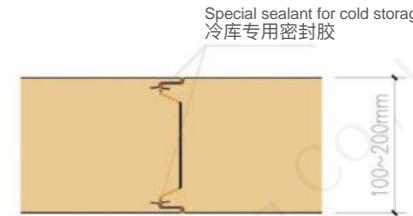
应用领域

Fast frozen processing and refrigeration of food
Food processing plant
Storage of dairy products
Biological products and medicines
Indoor assembly cold storage
Cold storage for cold-chain transportation vehicle

食品速冻加工及冷藏
食品加工厂
乳制品贮存
生物及医药制品
室内装配式冷库
冷链运输车辆冷库

JOINT DETAILS

节点示意图



THE TECHNICAL SPECIFICATIONS OF COLD STORAGE SANDWICH PANEL

冷库板技术数据

Thickness of panel 库板厚度	temperature difference between inside and outside 库内外温差	Height of wall panel 墙板高度	Length of roof panel 顶板长度	Applicable cold storage temperature 适用冷库温度
MM	°C	M*	M**	°C
100	30	5.00	4.45	-15
150	50	6.00	5.85	-25
200	75	7.00	6.80	-40

Note :

- The data shown in the left table are only available for the panel which subject to the internal-external pressure difference and contraction pressure without wind load. If the specified length/height is exceeded or wind load occurs, panel supporters are required.
- The above data are calculated according to the heat flow of 8-10W/m²

备注:

- M**/M**: 在内外压差和收缩压力下, 无风载情况。超出长度或者有风载则需要设置钢墙梁、钢吊梁。
- 以上数据根据单位面积热流量 8-10W/m² 来计算

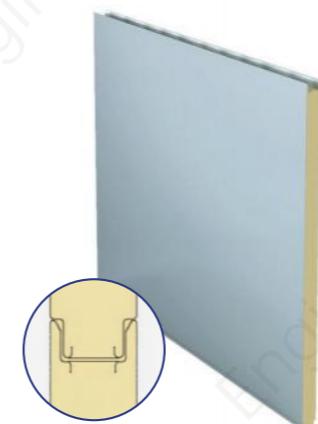


CLEN SANDWICH PANEL SERIES 夹芯板洁净板系列

One-stop service of energy-saving insulation system 节能保温系统一站式服务

clen sandwich panel series

NEW PRODUCTS RECOMMENDED AUTO PRODUCT LINE-PU CLEAN ROOM PANEL 新品推荐 : 机制聚氨酯净化板



Profile of polyurethane energy-saving
refrigerator sandwich panel
聚氨酯洁净板效果

APPLICATION AREA 应用领域

Electronic industry
Pharmaceutical industry
Medical operating room
Food industry

It mainly provides a complete set of fire and static cleaning system for the purification room, operating room and cleaning workshop, including walls, ceiling, anti-static workbench, etc. While fully considering the professional needs of anti-static, clean and fire protection, it also takes into account the physical and chemical properties of beauty, moisture, acoustic performance, durability and other physical and chemical properties to provide a perfect safety protection system.

电子行业
制药行业
医疗手术间
食品行业

主要为净化室、手术室和洁净车间提供整套的防火静电洁净系统, 包含墙体、吊顶、防静电工作台等。在充分考虑防静电、洁净、防火等专业需求的同时, 还兼顾美观、防潮、声学性能、耐久性等理化性能, 提供完美的安全防护体系。

PRODUCT ADVANTAGES 产品优势

- **Environmental protection:** green building materials, free of radioactivity, formaldehyde, heavy metal and other harmful substances, and will not produce smoke in case of high temperature or open fire.
- **Cleanliness:** Anti-static material, the surface is not easy to accumulate dust.
- **Moisture-proof:** it is not easy to deform, and its wet strength is not reduced. It can be used in wet environment.
- **Thermal insulation:** It has excellent thermal insulation effect and is an energy-saving material for thermal insulation.
- **Corrosion resistance:** the surface can resist acid and alkali, and has excellent pollution resistance.
- **Color:** various colors are available, elegant and soft, and decorative.

- **环保:** 绿色建材, 无放射性、不含甲醛、重金属等有害物质, 遇高温或明火不会产生有毒气体和烟雾。
- **洁净:** 抗静电材料, 表面不易积灰, 不起尘。
- **防潮:** 不易变形, 湿态强度不降低, 可用于潮湿环境。
- **保温:** 具有出色的隔热效果, 为保温节能材料。
- **耐腐蚀:** 表面可抗酸碱, 耐污染性出色。
- **彩色:** 多种颜色可供选择, 淡雅柔和, 装饰性强。



CLEN

EPS FOAM SANDWICH PANEL

泡沫夹芯板系列



One-stop service of energy-saving insulation system 节能保温系统一站式服务

聚苯乙烯夹芯板(泡沫夹芯板)是一种新型建筑板材,是由外层两侧钢板和内层聚苯乙烯经全电脑控制彩钢成型机加压加湿并铺上高强度胶黏剂复合而成

特点:自重轻,6-20kg/m³,安装方便,施工周期短,综合造价低,承载力高,整体刚度大,强度高,使用灵活,板材长度可根据工程设计要求及安装运输条件确定.隔热、隔音、保湿性能良好,平均导热系数 $\lambda:0.032$ 千卡/米时度.

Polystyrene sandwich panel (foam sandwich panel) is a new type of building board, which is composed of steel plates on both sides of the outer layer and inner polystyrene, which are pressurized and humidified by a fully computer-controlled color steel forming machine and paved with high-strength adhesive. Features: light deadweight, 6-20kg/m, convenient installation, short construction period, low comprehensive cost, high bearing capacity, large overall rigidity, high strength and flexible use. The length of the board can be determined according to the engineering design requirements and installation and transportation conditions. The heat insulation, sound insulation and moisture retention are good, and the average thermal conductivity $\lambda: 0.032$ kcal/m-hour.



Parameter description
参数描述

Core Material Type 芯材名称	EPS foam sandwich panel EPS 泡沫夹芯板
Thermal Conductivity 导热系数	0.035~0.045W/m·K
Core Thickness 芯材厚度	50mm/75mm/100mm/120mm/150mm/200mm etc.
Thickness of steel plate 钢板厚度	0.4~0.8mm
Color 常备颜色	White, navy, etc. Acceptable customization 白灰、海军蓝等可接受私人订制
Surface pattern 表面花纹	Plain, corrugated, pressed and embossed 普通、波纹、压制和压花
Combustibility 燃烧性能	B2 fire protection B2 级防火
Heat Transfer Coefficient 保温性能	Heat transfer coefficient ≤ 0.04 W(M.K) 传热系数 ≤ 0.04 W(M.K)
Core density 芯材密度	60~120KG/m ³
Noise reduction performance 降噪性能	Average sound insulation capacity is ≥ 37 dB(50mm) 平均隔音量 ≥ 37 dB(50mm)
Working temperature 工作温度	-268° C~700° C

EPS夹芯板

EPS sandwich panel

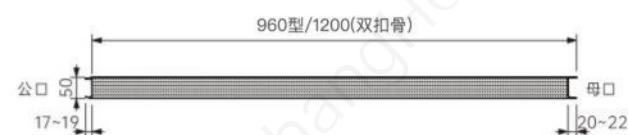
聚苯乙烯夹芯板(泡沫夹芯板)是一种新型建筑板材，是由外层两侧钢板和内层聚苯乙烯经全电脑控制彩钢成型机加压加湿并铺上高强度胶粘剂复合而成。

特点：自重轻，6-20kg/m³，安装方便，施工周期短，综合造价低，承载力高，整体刚度大，强度高，使用灵活，板材长度可根据工程设计要求及安装运输条件确定。隔热、隔音、保湿性能良好，平均导热系数入：0.032千卡/米时度。

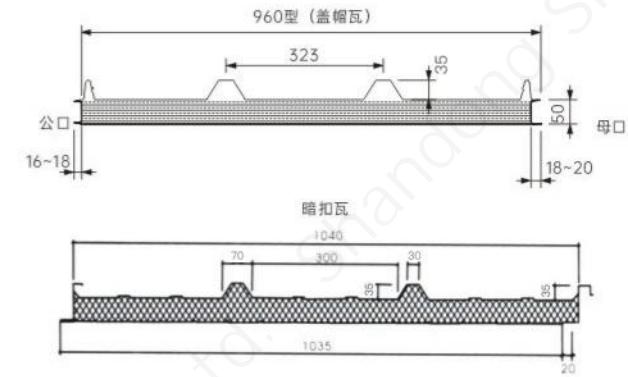
Polystyrene sandwich panel (EPS sandwich board) is a new type of construction panel which made of outer layers bothsides of prepainted steel coil and inner layer of polystyrene. Processing by computer-controlled color steel shaping machine and covered with high-strength adhesive.

Characteristic: light weight, 8-20kg/m³, easy to install, short work cycle, lower cost, high-capacity, high-stiffness and intensity. Flexible for using, the length of panel is according to the project requirements and term of installation and transportation. Heat preservation and heat insulation, prevented sound pollution, High-performance characteristic of moisturizing, the average of thermal conductivity is 0.032kcal/m.

EPS夹芯板 Wall Panel (Model 950/1150)



瓦板 Roof panel (Model 960/1050)



特性 Features

• 轻质: 6-20kg/m ³	Light weight: 8-20kg/m ³	• 隔热	Heat insulation
• 简易安装	Easy to install	• 隔音	Sound proof
• 安装周期短	short work cycle	• 防潮	Moisture proof
• 高荷载力	High load bearing capacity.	• 平均导热系数: 0.032kcal/m	Avg.Thermal conductivity: 0.032kcal/m
• 长度: 根据运输限制要求	Lengths: As per requirement considering the transportation constraints	• 高强度	High strength

应用 Application

活动房屋，钢结构，仓库，商业建筑，室内、室外体育场，冷库，建筑&室内隔墙等。

Prefabricated house, Industrial sheds, Warehouses, Commercial complexes, indoor/Outdoor stadiums, cold storage, Building & Indoor Partitions Etc.

EPS夹芯板房跨度表(挠度≤L/240)

FORM of the spans of polystyrene sandwich panel house(Deformation controlled under L/240)

跨度 Span / m 荷载 Loading kg/m	厚度 Thickness / mm					
	50	75	100	150	200	250
25	5.19	6.91	8.09	9.91	11.45	12.80
50	3.74	4.96	5.72	7.01	8.09	9.05
100	2.53	3.49	4.05	4.96	5.72	6.40
150	1.90	2.70	3.31	4.05	4.67	5.23
200	1.40	2.10	2.80	3.51	4.05	4.53
250	1.10	1.70	2.30	3.13	3.62	4.05
300	0.90	1.40	1.91	2.86	3.31	3.70



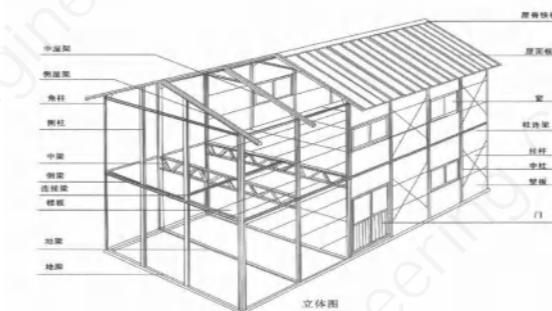
ACTIVITY ROOM SERIES

活动房系列



TECHNICAL PARAMETERS OF STANDARD PREFABRICATED HOUSE

标准型活动板房技术参数



Activity room has the characteristics of long service life, wide application range, light weight, good stability, simple installation, convenient transportation and frequent disassembly: it is suitable for buildings, railways, highways, bridges, water conservancy, electric power, petroleum, tourism and troops; Its excellent properties, such as tight sealing, heat insulation, waterproof structure, moisture resistance and corrosion resistance, beautiful fire prevention, firmness and stability, arbitrary addition and subtraction, arbitrary spacing and various colors, meet the needs of different customers.

活动房使用寿命长、适用范围广，重量轻、稳定性好、安装简便、运输便捷、能频繁拆装等特点：适合建筑、铁路公路、桥梁、水利、电力、石油、旅游和部队等单位用房；其房屋密封严密、隔热保温、结构防水、耐潮防腐、防火美观、牢固稳定、任意加减、随意间隔、色泽多样等优良性能满足不同客户需要。

The main products are: double slope series, single slope series, hoisting series, ascending house series, multi-storey house series and other different types; Wall materials include color steel composite board and fiber composite board. The main structure of the product is frame disassembly, frame hoisting and assembly structure.

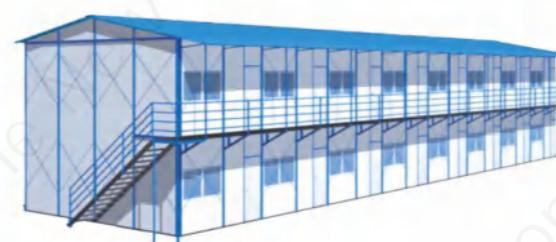
主要产品有：双坡系列、单坡系列、吊装系列、昇型房屋系列、多层房屋系列等不同类型；墙体材料有彩钢复合板纤维复合板等。产品主要结构为框架拆装式，框架吊装式和拼装式结构。



• Single slope type disassembly house 单坡型拆装活动房屋



• Double slope type disassembly house 双坡型拆装活动房屋



• Double deck mobile house 双层活动房屋



• Three storey mobile house 三层活动房屋



活动房系列

SUPERIOR PERFORMANCE AND APPLICATION RANGE 优越性能及应用范围

- **Reliable structure:** light steel flexible structure system, safe and reliable, meeting the requirements of building structure design code
- **Convenient disassembling and assembling:** the house can be disassembled and assembled for many times and used repeatedly. (The installation only requires simple work, and the average person can install 20-30m every day, and 2-6 people can install one 3K+10K standard activity room in only two days)
- **Beautiful decoration:** the house is beautiful and generous, bright in color, flat in texture, and has a good decorative effect
- **Flexible layout:** doors and windows can be set at any position, indoor partitions can be set at any horizontal axis, and stairs can be set outdoors.
- **Structural waterproof:** the house is designed with structural waterproof, without any additional waterproof treatment
- **Long service life:** light steel structures are subject to anti-corrosion treatment, with a normal service life of more than 10 years
- **Environmental protection and conservation:** the house is reasonably designed, easy to disassemble and assemble, can be recycled for many times, has low loss rate, and does not produce construction waste. The average annual use cost of similar houses is much lower than that of other materials
- **Temporary construction houses widely used in field operations:** urban municipal, commercial and other temporary uses, such as temporary offices, dormitories and temporary shops, temporary schools, temporary hospitals, temporary parking lots, temporary exhibition halls, temporary maintenance departments, temporary gas stations, etc.

· **结构可靠:** 轻钢柔性结构体系, 安全可靠满足建筑结构设计规范要求

· **拆装便捷:** 房屋可多次拆装, 重复使用。 (安装只需简单工具, 平均每人每天可安装 20-30m , 2-6 人仅两天即可安装 3K+10K 的标准活动房 1 栋)

· **装饰美观:** 房屋整体美观大方、色泽鲜明、质感柔板面平整, 具有良好的装饰效果

· **布局灵活:** 门窗可设置在任意位置, 室内隔断可以在任意横向轴线设置, 楼梯设置在室外。

· **结构防水:** 房屋采用结构防水设计, 不需另做任何防水处理

· **使用寿命长:** 轻钢结构均进行防腐处理, 正常使用寿命达 10 年以上

· **环保节约:** 房屋设计合理、拆装简便、可多次循环使用, 损耗率低, 不产生建筑垃圾。年平均使用成本大大低于其他材料搭建的同类房屋

· **广泛用于野外作业的临时施工用房:** 城市市政、商业及其他临时性用房, 如: 临时办公室、宿舍及临时商店、临时学校、临时医院、临时停车场、临时展览馆、临时维修部、临时加油站等。

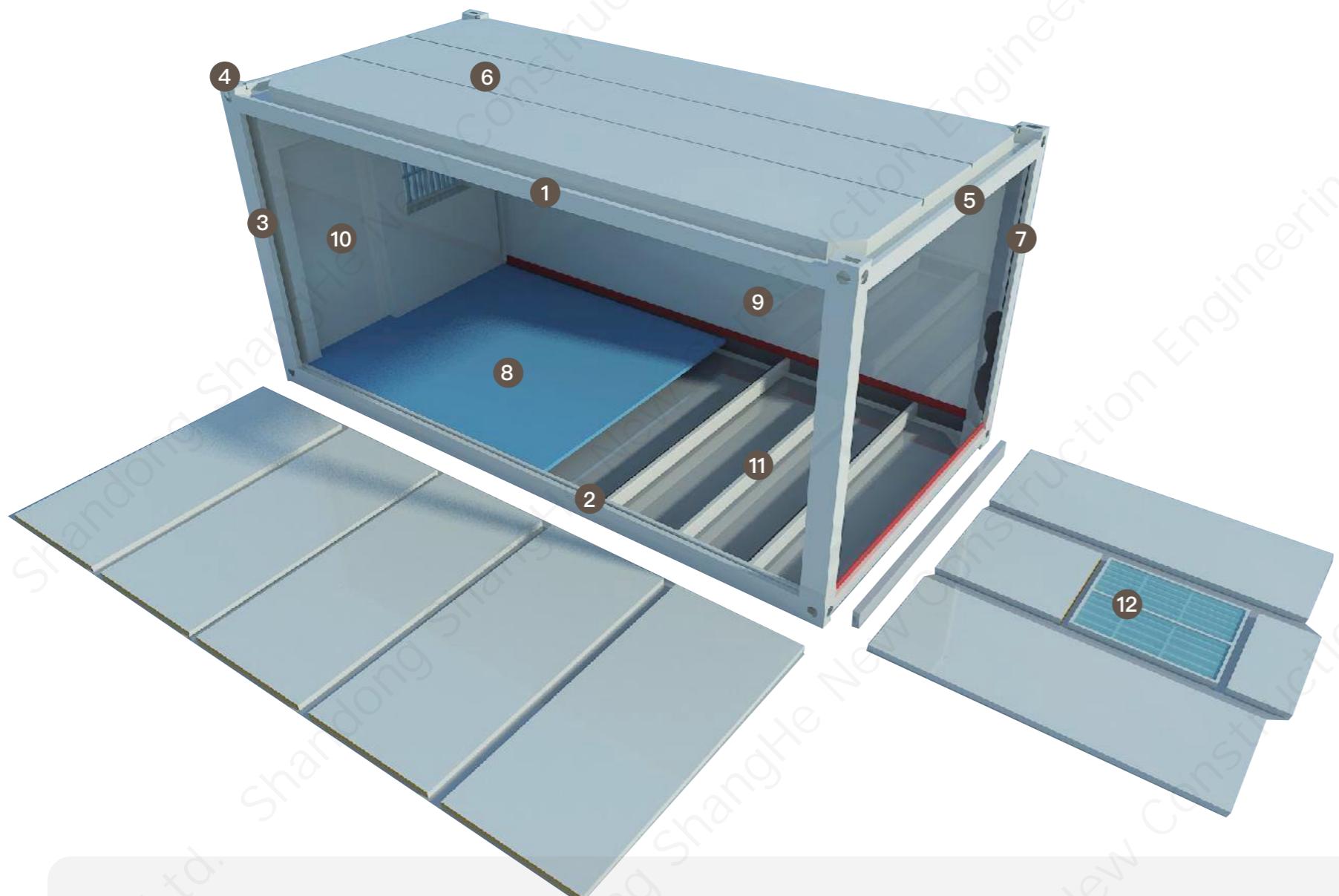
GENERAL TABLE FOR FLAT-TOP BOARD HOUSES 平顶型板房通用表

Serial No	序号	Width 宽度	Length 长度	Height 高度
1		3T	nT	3H 6H
2		3.5T	nT	3H 6H
3		4T	nT	3H 6H
4		4.5T	nT	3H 6H
5		5T	nT	3H 6H

Note: The standard term nT X nT X nH W x L x H T=1150mm H=1000mm length n is optional. The standard bay is 3T
说明: 标准术语 nT X nT X nH 宽 x 长 x 高 T=1150mm H=1000mm 长度 n 可任选标准开间为 3T

MOVABLE PLANK HOUSE SPLICING 活动板房拼接

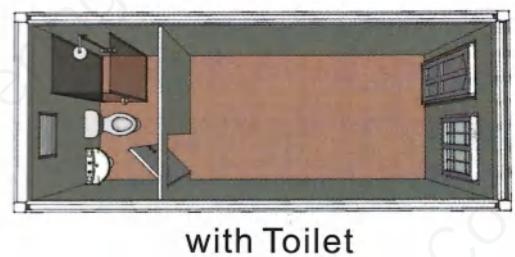




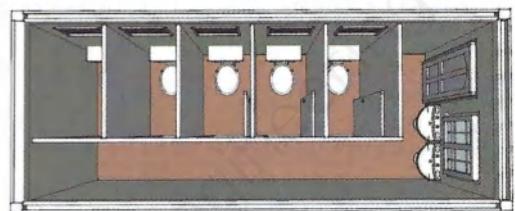
① Top side rail/顶侧梁	⑥ Color steel capping/彩钢封顶
② Bottom side beam/底侧梁	⑦ Drainage system/排水系统
③ Column system/立柱系统	⑧ Fireproof glass magnesium plate/防火玻镁板
④ Box Angle/箱角	⑨ Rock wool composite board/岩棉复合板
⑤ U-shaped flooding tank/U型泛水槽	⑩ Sandwich steel door/夹芯钢制门

The FLAT PACK CONTAINER has simple and safe structure, low requirements on foundation, and its top and bottom frames are integrated, which has the characteristics of quick on-site installation, convenient moving and relocation, many turnover times, long service life, etc. The product has no loss in disassembly and assembly, no construction waste, and can be used as office, accommodation, restaurant, bathroom, entertainment and combined large space, and can meet the needs of construction engineering camps, municipal temporary houses, field operation barracks, emergency resettlement houses, and so on.

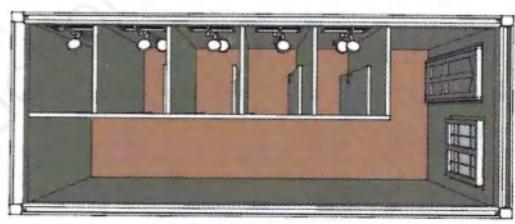
打包式箱房结构简单、安全，对基础要求低，其顶部和底部框架分别为一个整体，具有现场安装快捷、移动搬迁便利、周转次数多、使用寿命长等特点，该产品拆装无损耗，无建筑垃圾，可作为办公、住宿、餐厅、卫浴、娱乐以及组合大空间使用，可满足建筑工程营地、市政临时用房、野外作业营房、紧急安置房、学校、医院、旅游驿站、各类商业用房的需求。



with Toilet



Toilet



Shower room

BASIC CONFIGURATION SHEET

基本配置单

External dimension 外尺寸(L*W*H)	6000*3000*2800mm	Inside dimension 内尺寸(L*W*H)	5600*2200*2515mm	
Thermal insulation property 隔热性能	$\lambda=0.43\text{W}/\text{米}\cdot\text{K}$	Wind resistance 抗风性能	0.50KN/m ²	
Sound insulation property 隔音性能	Isolation volume >30dB 隔音量>30dB	Fire resistance 防火性能	Level A/A级	
Water resistance 防水性能	II级	Seismic performance 抗震性能	Grade 8/8级	
Ground live load 地面活载	2.0KN/m ²	Roof live load 屋面活载	0.50KN/m ²	
Structural surface 结构表面	Electrostatic spray white 静电喷涂白色	Connection mode 连接方式	High strength bolted connection 高强螺栓连接	
名称		组成部分	数量	
Top frame 顶部框架		170mm, 2.5mm-2 top side beams, 2 top cross beams, 50-shaped purlin steel -6 20*20*6000 square tubes -2 sets, and 1 set of explosion-proof box. 170mm, 顶侧梁2.5mm-2支, 顶横梁-2支, 横条50几字钢-6支20*20*6000方管-2支, 防爆线盒1套	1	set
Bottom frame 底部框架		160mm, 2.5mm-2 bottom side beams, 2 bottom cross beams, and 9 purlins with 120 steel beams. 160mm, 底侧梁2.5mm-2支, 底横梁-2支, 横条120几字钢-9支	1	set
Column system 立柱系统		2535*150*210*2.5mm	4	set
Top/bottom box Angle 顶/底箱角			1	set
L-angle L角			1	set
Color steel capping 彩钢封顶		Color steel veneer 260° bite 0.4mm/彩钢单板260° 咬合0.4mm	1	set
831 ceiling board 831吊顶板		YX28-277-831,0.3mm	1	set
Top insulation 顶部保温		75 thick single foil glass silk wadded 14kg/m ² +PE film/75厚单箔玻璃丝绵14kg/m ² +PE膜	1	set
Drain water 排水		PVC Ø50*2.0*2700	4	root
Flooring 地板	ground 地面	18mm glass magnesium plate/18mm玻镁板	1	set
		1.6mm PVC plastic floor/1.6mm PVC塑胶地板	1	set
wallboard 墙板	Composite board 复合板	950 double-sided 0.30mm-50mm rock wool, capacity 50kg/m, h-mouth, rubber grain on one side and plain on the other, double-sided PE film. 950双面0.30mm-50mm岩棉,容量50KG/m ² ,H口,一面橡皮纹一面平白,双面PE膜	15	piece
Doors and Windows 门窗	Doors and Windows 门窗	Sandwich steel door 970*1970mm with fire lock./夹芯钢质门970*1970mm,带防火锁	1	frame
		930*1120mm-2 plastic-steel casement windows, double glass, with screen window/security fence (U-PVC)/塑钢平开窗930*1120mm-2个,双玻,配纱窗/防盗护栏(U-PVC)	2	frame

名称	组成部分	数量	单位
lamp/灯	LED decorative lamp 36W*2/LED装饰灯 36W*2	1	set
socket/插座	10A 3 five-hole sockets; One in three hole socket 16A/10A五孔插座 3个;三孔插座16A 1个	1	set
National standard electric Apparatus 国标电器	Switch/开关 One single key switch and one distribution box./单键开关1个,配电箱1个	1	set
Electric wire/电线	2 * 1.5m * lighting, 3 * 2.5m socket, 3 * 4m air conditioning socket and 3 * 6m incoming line. 2*1.5m ² *照明,3*2.5m ² 插座,3*4m ² 空调插座,3*6m ² 进线	1	set
Industrial socket 工业插座	220V 50Hz3P32A	1	set
Decoration 装饰	Bracket Angle 立柱包角 2535mm color steel pressing/2535mm彩钢压制件 bottom of a chest 箱底 U-shaped flooding tank/U型泛水槽	4	root
Attachment/配件	Wall panel card 墙板卡件 E-shaped card/E形卡件 attachment/配件 Matching screws, drill nails, floor nails, cross half round head/配套螺丝,钻尾钉,地板钉,十字半圆头	1	set

Remarks: 1. The water and electricity (only including high voltage 220V) system only includes the indoor part, and the outdoor household power supply needs to be provided by Party A, excluding air conditioning.

2. Single-slot main incoming wire 6 square copper wire, indoor air conditioning socket wire specification 4.0 square copper wire, ordinary socket wire specification 2.5 square copper wire, lighting 1.5 square copper wire, indoor maximum load 7040W W. 。

备注:1.水、电(只含强电220V)系统只包含室内部分,室外进户电源需甲方安供,不含空调.

2.单槽主进线6平方铜线,室内空调插座用线规格4.0平方铜线,普通插座用线规格2.5平方铜线,照明1.5平方线铜线,室内最高荷7040W.

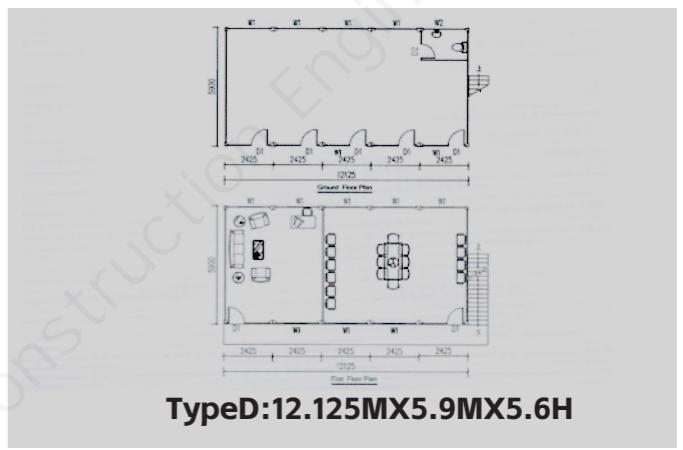
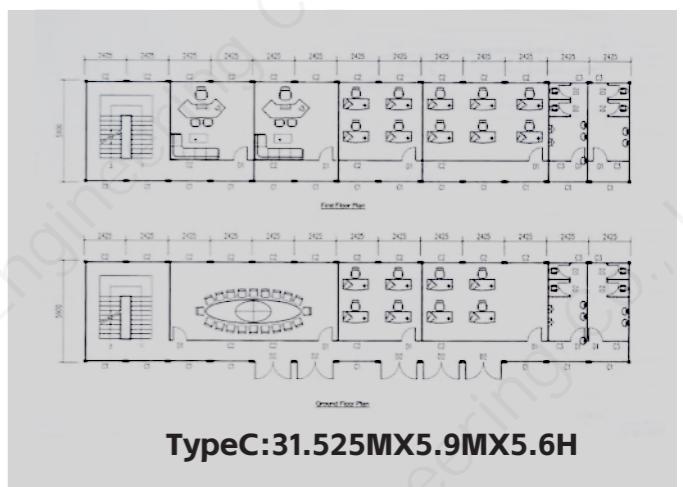
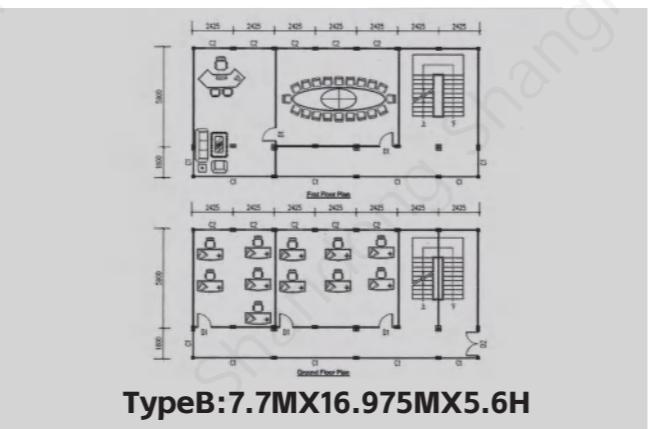
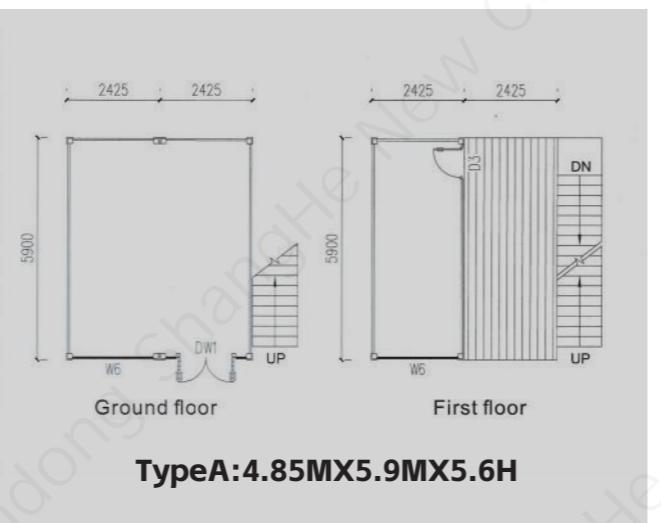
SHOW DETAILS

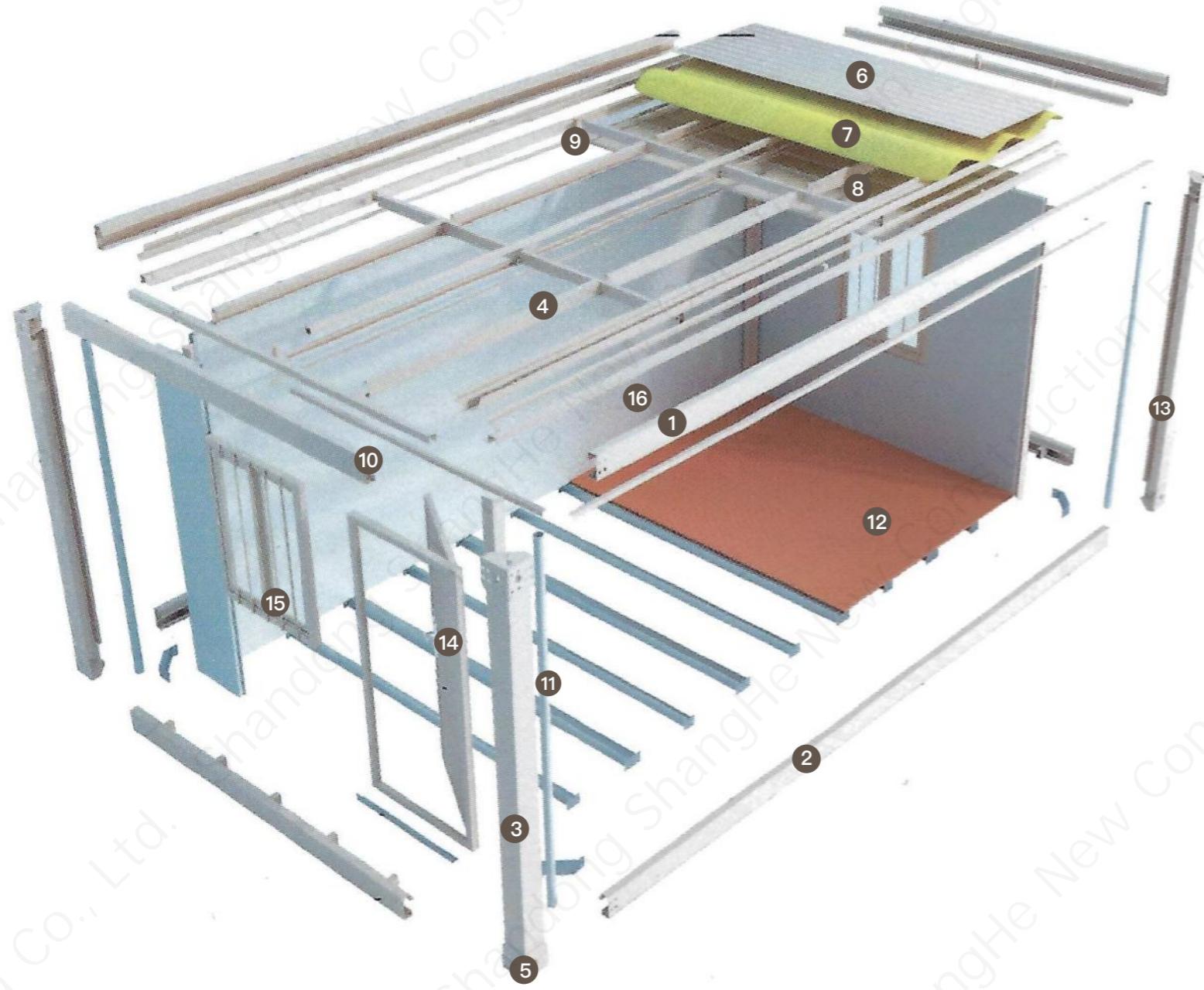
细节展示



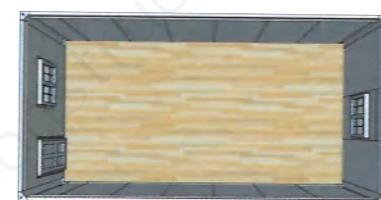


Manager room, office, reception room, meeting room, toilet

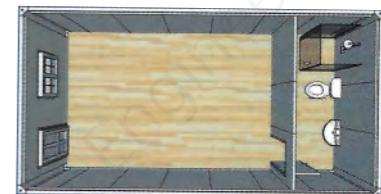




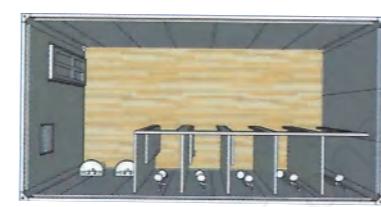
① Top side rail/顶侧梁	⑪ Downspout/落水管
② Bottom side beam/底侧梁	⑫ Concrete slab/水泥板
③ Column system/立柱系统	⑬ Internal Angle line/阴角线
④ Purlin/檩条	⑭ High-grade steel doors/高档钢质门
⑤ Galvanized corner/镀锌角件	⑮ Plastic steel anti-theft window/塑钢防盗窗
⑥ Waterproof tile capping/防水瓦封顶	⑯ Rock wool sandwich wall panel/岩棉夹芯墙板
⑦ Glass floss insulation board/玻璃丝绵保温板	⑰ Structural adhesive/结构胶
⑧ 831Color steel integrated ceiling board/831彩钢集成吊顶板	
⑨ Color steel integrated ceiling board/吊顶角线	
⑩ Flooding flume/泛水槽	



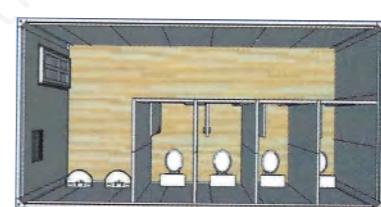
Empty



with Toilet



Toilet



Shower room

Prefabricated house, also known as "quick-assembling container", is a kind of container trailer. Quick LCL is composed of frame and wallboard, which is fixed by screws without welding. Common in construction sites as workers' dormitories, durable, fast disassembly and convenient transportation.

快拼式集装箱，又称“快拼箱”，是集装箱活动房的一种。快拼箱是由框架和墙板组合而成的，不用焊接，完全采用螺丝固定。常见于建筑工地作为工人宿舍，坚固耐用，拆装快捷、运输方便。

BASIC CONFIGURATION SHEET

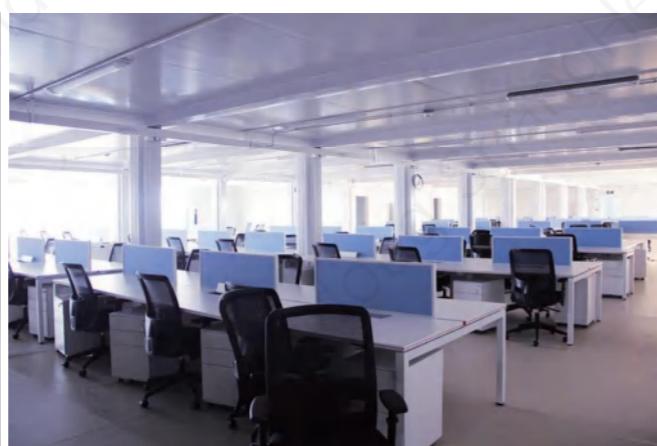
基本配置单

6000 x 3000 x 2800 TEU configuration

Top frame 顶框架	Galvanized molding beam, galvanized content 80g/m ² , 160 width,Q355 custom house special material.(2 branches) 镀锌成型横梁,镀锌含量80g/m ² ,160宽,Q355定制房屋专用料.(2支)
	Galvanized molding beam, galvanized content 80g/m ² , 160 width,Q355 custom house special material.(2 branches) 镀锌成型横梁,镀锌含量80g/m ² ,160宽,Q355定制房屋专用料.(2支)
Bottom frame 底框架	Galvanized molding beam, galvanized content 80g/m ² , 160 width,Q355 custom house special material.(2 branches) 镀锌成型横梁,镀锌含量80g/m ² ,160宽,Q355定制房屋专用料.(2支)
	Galvanized square pipe 40*60*1.3 Galvanized square pipe with holes at both ends, galvanized content 80g/m ² .(6 branches) 镀锌方管40*60*1.3镀锌方管两端开孔,镀锌含量80g/m ² .(6支)
Purlin 檩条	Galvanized square pipe 40*80*1.3 Galvanized square pipe with holes at both ends, galvanized content 80g/m ² .(9 branches) 镀锌方管40*80*1.3镀锌方管两端开孔,镀锌含量80g/m ² .(6支)
	20*40*1.2 galvanized square pipe, galvanized content 80g/m ² .(3 branches) 20*40*1.2镀锌方管,镀锌含量80g/m ² .(3支)
Main body frame 主体框架	Galvanized column, galvanized content 80g / m ² 210*150 width,Q355 customized house special material.(4 branches) 镀锌立柱,镀锌含量80g / m ² 210*150宽,Q355定制房屋专用料.(4支)
	Connector 8.0mm, galvanized content 80g/m ² .(eight)/连接件8.0mm,镀锌含量80g / m ² .(8块)
Galvanized corner 镀锌角件	3.5mm upper corner, zinc content 80g/m ² 210 * 200 * 150mm.(four) 3.5mm上角件,镀锌含量80g/m ² 210 * 200 * 150mm.(4个)
	3.5mm bottom corner, zinc content 80g/m ² 210 * 160 * 150mm.(four) 3.5mm下角件,镀锌含量80g/m ² 210 * 200 * 150mm.(4个)
Single tile capping 单瓦封顶	Color steel single tile, special waterproof method/彩钢单瓦,特殊防水方法
moisture-proof/防潮	Moisture-proof film, PE resin film 1.0mm/防潮膜,PE树脂薄膜1.0mm
Glass wool/玻璃棉	50mm glass silk insulation quilt, 14kg/m/50mm玻璃丝绵保温棉被、14kg/m
colour/颜色	Paint (electrostatic spray) white/烤漆(静电喷塑)白色
bolt/螺栓	High strength hexagonal (galvanized)/高强度内六角(镀锌)
Ceiling tile 吊顶瓦	Ceiling tile 吊顶瓦
	0.3mm, 831 color steel integrated ceiling board, coated/0.3mm,831彩钢集成吊顶板,覆膜
Ceiling Angle line 吊顶角线	Ceiling Angle line, fixed ceiling tile/吊顶角线,固定吊顶瓦

Downspout 落水管	Downspout/落水管	50 downspouts/50落水管
Ground 地面	Concrete slab/水泥板	18mm thick cement board, 1177*2820mm/180mm厚水泥板,1177*2820mm
Internal Angle 阴角	Internal Angle line/阴角线	Color steel Yin Angle line, white gray/彩钢阴角线,白灰
The door 门	High-grade steel doors 高档钢质门	950 * 1970
window 窗	Plastic steel anti-theft window 塑钢防盗窗	950*1130 double glass window/950*1130双玻窗
wallboard 墙板	950*50	50mm EPS/Fireproof Glass Wool/Rock Wool Sandwich panel 50mm EPS/防火玻璃棉/岩棉夹芯板
Auxiliary material 辅材	Auxiliary material/辅材	Small parts, drill tail wire, structural adhesive, flood tank, U-shaped slot 小件、钻尾丝、结构胶、泛水槽、u型槽
Electrical distribution 电配	General electrical distribution 普通电配	62*3 core, 42*3 core, 2.5*3 core, 1.5*3 coreWire, 1.5*2 core wire All copper wire, three-hole (air conditioning) socket 1One, two five-hole sockets, one single switch, strip light2, J-8 distribution box 1, 32A leakage protection 1, a set of industrial sockets, industrial socket box 1 6 ² *3芯线、4 ² *3芯线、2.5 ² *3芯线、1.5 ² *3芯线、1.5 ² *2芯线全部铜线,三孔(空调)插座1个,五孔插座2个,单开开关1个,长条灯2个,J-8配电箱1个,32A漏保1个,工业插座一套,工业插座盒1个





So what's the difference between a mobile home and a flat pack container?
那么,快拼箱房和打包箱房有什么区别呢?

Although they are almost the same in appearance, they are quite different in the process of production and installation, such as installation skills, which are mainly manifested in the following points:

虽然两者在外观上大致相同,但是在制作和安装过程中却有很大的不同.比如安装技巧等方面.

Different production cycles
生产周期不同

Different waterproof effects
防水效果不同

Different installation methods
安装方式不同

Different frame structures
框架构造不同

Generally, the quick-packing is to tighten the screws to connect the upright post and the upper and lower beams, but the packing box is usually composed of the upper and lower beams by welding, so the production time of the packing box is longer than that of the quick-packing room.

快拼箱一般是拧紧螺丝连接立柱和上下梁,但打包箱通常是上下梁通过焊接组成的,因此打包箱的生产时间是长于快拼箱房的。

The top beam of the packing box has its own drainage ditch, and there is a professional downpipe inside, which is hidden among the four columns, making the house both beautiful and firm. And fast LCL usually falls into the water at the top around.

打包箱顶梁自带排水沟,内部设有专业的落水管,隐密在四个立柱当中,使得房屋兼具美观性和牢固性。而快拼箱通常是四周顶部落水。

The packing box is generally in the form of frame and column, so it is more stable and safe, and it can also have more advantages in resisting natural disasters. Fast LCL has the characteristics of quick and convenient installation and disassembly, low transportation cost and so on, which can meet the building requirements of three floors, so it is widely used in temporary buildings such as construction sites.

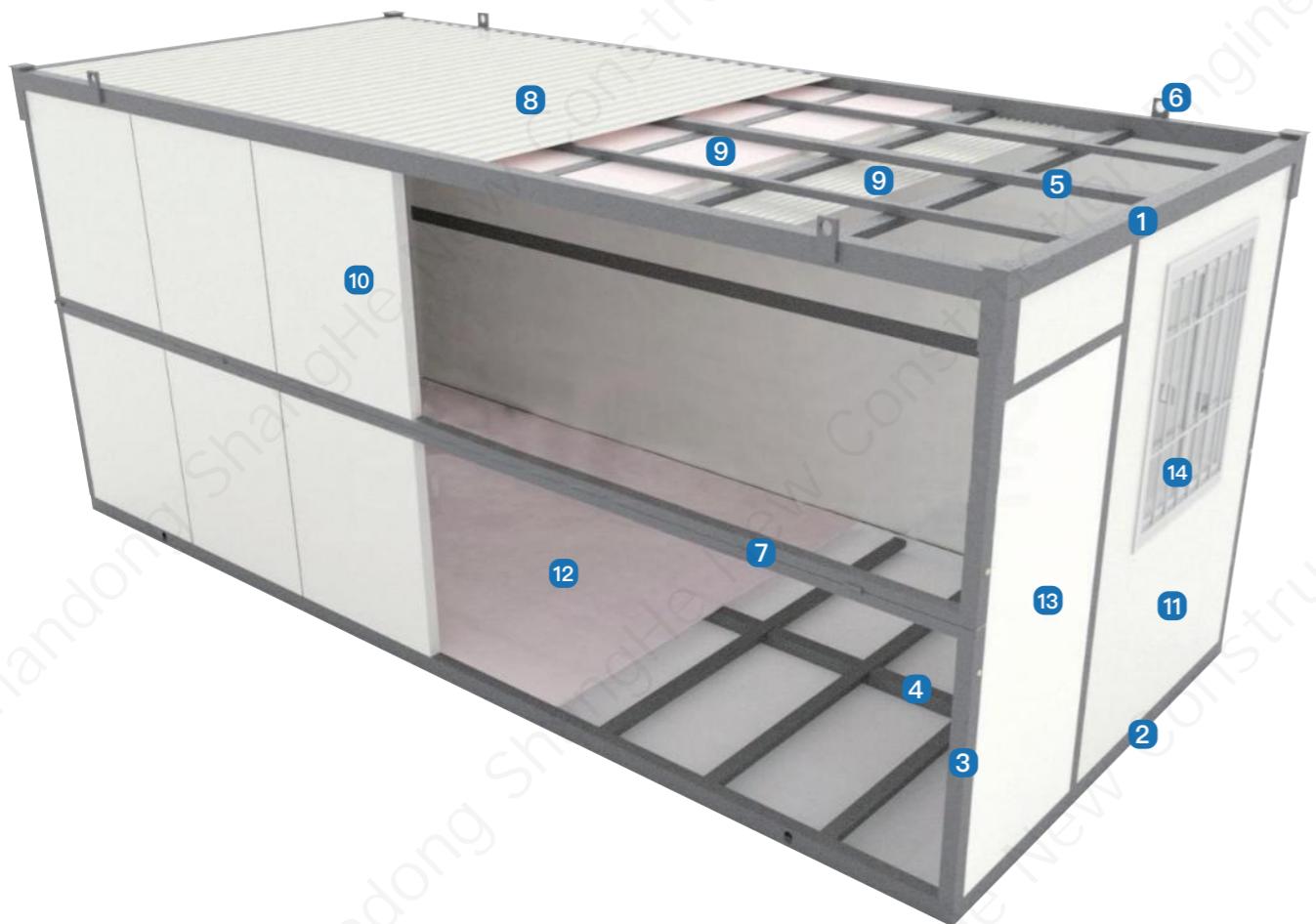
打包箱采用的一般为框架加立柱的形式,因此稳固性和安全性更好,抵御自然灾害也可以更有优势。快拼箱拥有安装拆卸快捷方便,运输成本低等特点,能够满足三层楼的建筑要求,因此普遍的运用在建筑工地等临时用房。

The top frame and the bottom frame of the packing box house are a whole, which saves the installation steps, while the quick packing room needs to be assembled by itself.
打包箱房顶部框架和底部框架分别为一个整体,省去了安装步骤,而快拼箱房需要自行拼装。

To sum up, as a new architectural solution, packaged box house has many advantages such as flexibility, rapidity, safety and strong waterproof, so it has a wide application prospect and development potential in the construction industry. With the continuous development and progress of society, it is believed that packing box houses will play a more important role in the future, bringing more convenience and value to our life and work.

总之,快拼箱房和打包箱房作为临时或长期住房解决方案,都展现出了它们独特的优势。快拼箱房以其快速搭建和灵活组合的特点,适合那些追求高效、便捷的客户;而打包箱房则以其坚固耐用、移动方便的特性,满足了对于稳定性和可移动性有高要求的使用场景。根据您的具体需求,无论是快速部署还是长期居住,两者中总能找到适合您的选择。更重要的是,我们提供定制服务,确保每一位客户都能获得符合其个性化需求和预算的理想箱房。





- ① Top girder/顶主梁
- ② Bottom girder/底主梁
- ③ Side wall frame/侧墙框架
- ④ Bottom bearing/底部承重
- ⑤ Top bearing/顶部承重
- ⑥ Hanger head/吊头
- ⑦ Folding hinge/折叠合页
- ⑧ External top plate/外部顶板
- ⑨ Internal ceiling/内部吊顶
- ⑩ Side wall rock wool siding/侧墙岩棉墙板
- ⑪ Rockwool wall panels, front and rear/前后岩棉墙板
- ⑫ Fireproof glass magnesium floor/防火玻镁地板
- ⑬ High quality security door/优质防盗门
- ⑭ Security window/防盗窗
- ⑮ Insulating glass wool/隔热玻璃丝绵
- ⑯ Overall frame protection paint/整体框架保护涂料

BASIC CONFIGURATION SHEET 基本配置单

Basic characteristics 基本特征	External dimensions (mm)/外部尺寸(mm)	5800(L)*2480(W)*2500(H)		
	Internal dimensions (mm)/内部尺寸(mm)	5620(L)*2360(W)*2400(H)		
	Folded state (mm)/折叠状态(mm)	5800*2480*350		
	Total weight (kg)/总质量(kg)	1000		
Frame structure 框架结构	Top girder/顶主梁	Q235B P-shaped square tube 60x80x1.3mm/P形方管		
	Bottom girder/底主梁	Q235B Rectangular square tube 60x140x1.3mm/矩形方管		
	Front and rear main beam/前后主梁	Q235B P-shaped square tube 40x80x1.3mm/P形方管		
	Side wall frame/侧墙框架	Q235B P-shaped square tube 40x60x1.3mm/P形方管		
	Bottom bearing/底部承重	Q235B Rectangular square tube 40x40x1.3mm/矩形方管		
	Top bearing/顶部承重	Q235B Rectangular square tube 40x40x1.3mm/矩形方管		
	Hanger head/吊头	Q235B 125*200*(4mm)		
	Folding hinge/折叠合页	Galvanized hinge 13mm/镀锌合页13mm		
	Overall frame protection paint/整体框架保护涂料	Electrostatic spray/highlight white/静电喷塑/高光白		
Tank top 箱顶	External top plate/外部顶板	Corrugated top 0.4mm瓦楞顶0.4mm		
	Internal ceiling/内部吊顶	V831 Inner ceiling panel/V831内吊顶板		
	Insulating glass wool/隔热玻璃丝绵	Glass fiber cotton roll 50mm (volume weight 16kg)/玻璃丝绵卷50mm(容重16公斤)		
Wallboard 墙板	Sidewall/侧墙	50mm composite plate 0.23mm+ basalt cotton (bulk weight 50kg) +0.23mm 50mm复合板0.23mm+玄武岩棉(容重50公斤)+0.23mm		
	Front and rear wall panels/前后墙板	50mm composite plate 0.23mm+ basalt cotton (bulk weight 50kg) +0.23mm 50mm复合板0.23mm+玄武岩棉(容重50公斤)+0.23mm		
Flooring/地板				
Electrical system 电气系统	Fireproof glass magnesium floor 15mm/防火玻镁地板15mm			
	Electrical wiring is installed in strict accordance with moisture-proof specifications, and all electrical products must comply with CE certification. Connect the circuit according to the circuit engineering specifications, indoor: 4' GB soft copper wire, 20A circuit breaker 1, socket into the line 2.5', 5 hole single outlet 1, 1 air conditioning outlet, 1 lamp. 电器布线, 严格按照防潮规范安装, 所有电器产品都需符合CE认证。根据电路工程规范连接电路, 室内:进线4'国标软铜线, 20A断路器1个, 插座进线2.5', 五孔单开插座1个, 空调插座1个, 灯1个			
Common anti-theft 普通防盗门	High quality security door (warm white) Size:930mm*1970mm/优质防盗门(暖白色)尺寸:930mm*1970mm			
	930*930 Plastic steel anti-theft integrated window, glass thickness 4mm (warm white)/ 930*930塑钢防盗一体窗、玻璃厚4mm(暖白色)			
Quality assurance 质量保证				
The whole box meets the Class A fire protection standard.				

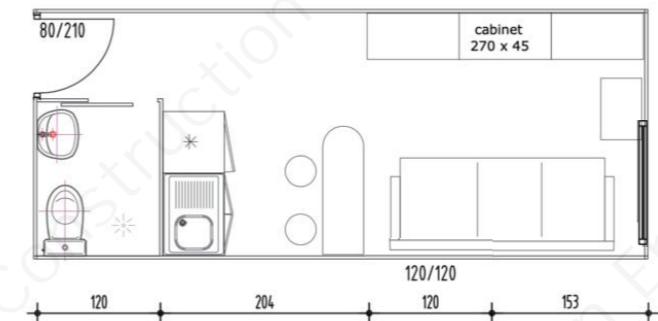
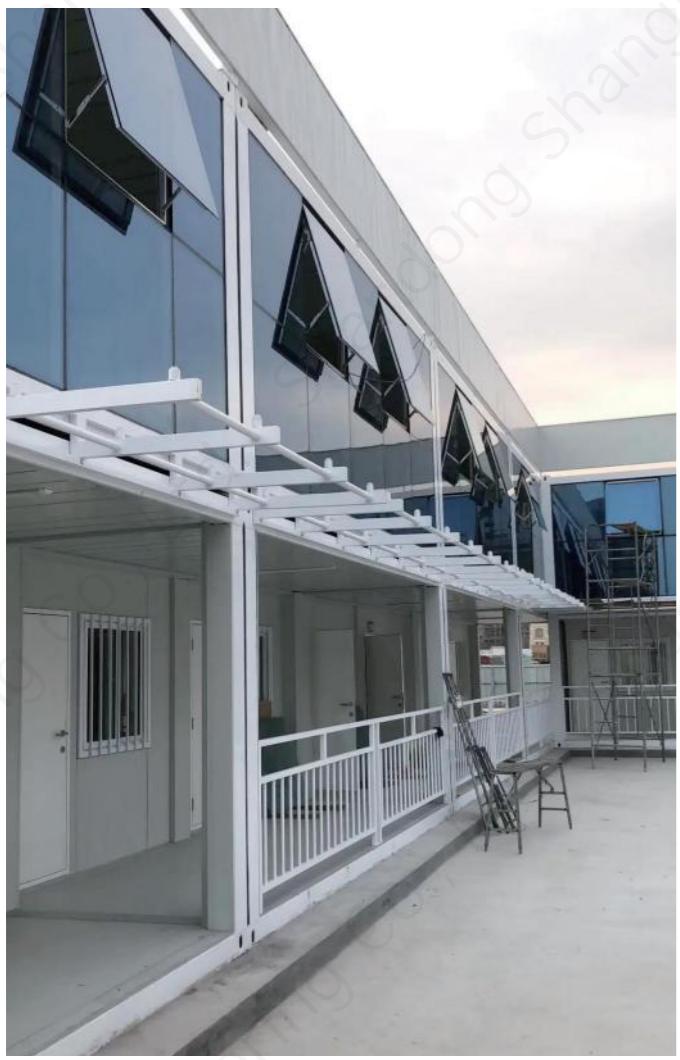


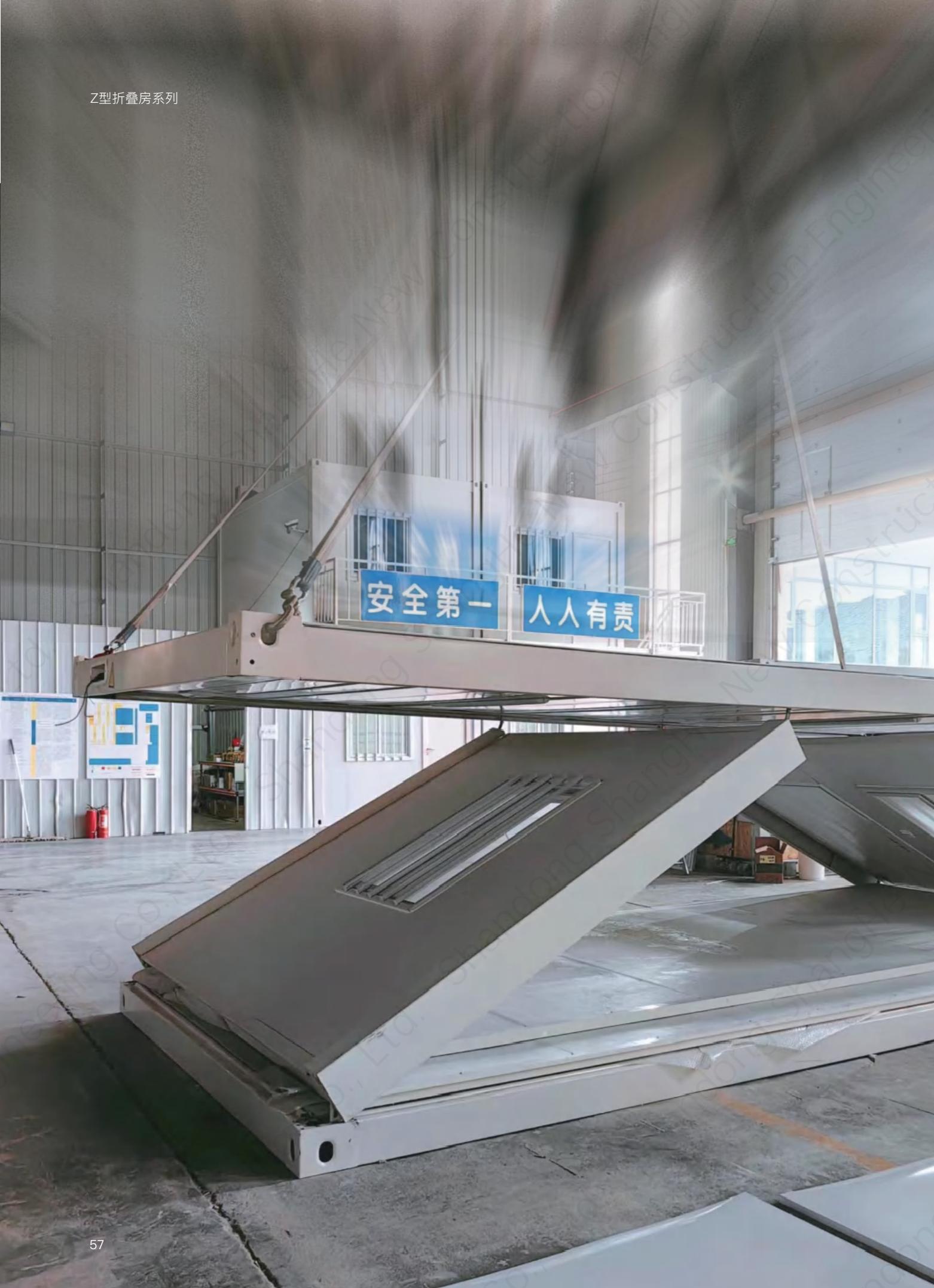
4 STEPS=4 MINUTES=1 HOUSE

Features:

- 1. 4 minutes can install 1 house.
- 2. **Galvanized** steel structure.
- 3. Wall panel 50mm fireproof rock wool composite panel& Box top insulation glass silk wadding
- 4. Aluminum sliding windows with security bar.
- 5. Plastic steel anti-theft window.
- 6. Fireproof glass magnesium floor 15mm.
- 7. When is folded, the height is only 350mm
- 8. Include electrical.







BASIC CONFIGURATION SHEET

基本配置单

Basic characteristics 基本特征	External dimensions (mm)/外部尺寸(mm)	5800(L)*2480(W)*2580(H)
	Internal dimensions (mm)/内部尺寸(mm)	5630(L)*2310(W)*2200(H)
	Folded state (mm)/折叠状态(mm)	5800(L)*2480(W)*570(H)
	Total weight (kg)/总质量(kg)	1600
Frame structure 框架结构	Bale top/打包箱顶	170mm galvanized steel strip steel beam, galvanized content 80g/m ² , top side beam 2.3mm*2, top beam -2, secondary beam 50*1.2 galvanized steel (or 40*60*1.2 galvanized square steel)-7, 20*20 galvanized square pipe -2 170mm镀锌钢带钢梁,镀锌含量80g/m ² ,顶侧梁2.3mm*2支,顶横梁-2支,次梁50*1.2镀锌几字钢(或40*60*1.2镀锌方钢)-7支,20*20镀锌方管-2支
	Packing box bottom/打包箱底	160mm, galvanized steel strip steel beam, galvanized content 80g/m ² , bottom side beam 2.3mm *5633-2, bottom beam 2689-2, secondary beam 120*1.2 galvanized steel (or 50*100*1.2 galvanized square steel)9 160mm镀锌钢带钢梁,镀锌含量80g/m ² ,底侧梁2.3mm*5633-2支,底横梁2689-2支,次梁120*1.2镀锌几字钢(或50*100*1.2镀锌方钢)-9支
	Hanger head/吊头	3.0mm high-end box corner bottom 160mm, top 200mm/3.0mm高端箱角底160mm顶200mm
	Upright/立柱	150*210*2535mm galvanized steel with column, galvanized 80g/m ² connector 8mm, type 1 column reinforcement 150*210*2535mm镀锌钢带立柱, 镀锌含量80g/m ² 连接件8mm, L型立柱加强筋
	Slide/滑道	Slide for packing box/打包箱专用滑道
	Overall frame protection paint 整体框架保护涂料	Electrostatic spray/Plain plastic powder 静电喷塑/直白塑粉
Tank top 箱顶	Bale top/打包箱顶	Color steel veneer 360° bite 0.4mm 彩钢板360°咬合0.4mm
	Top insulation/顶部保温	100 thick single foil glass floss 14kg /m ³ +1.0 resin film 100厚单箔玻璃绵14kg/m ³ +1.0树脂薄膜
	Internal ceiling/内部吊顶	YX28-277-831, 0.4mm

Wallboard 墙板	Thermal insulation rock wool/隔热岩棉	950 double side 0.35mm50mm rock wool, bulk weight 50KG/m ² , one side of the H-type jack orange peel, one side of the flat white, double coated, 950双面0.35mm50mm岩棉, 容重50KG/m ² , H型插口一面橘皮纹一面白, 双面覆膜
	Flank/侧墙	950 double-sided 0.35mm50mm rock wool, bulk weight 50KG/m ² , one side of H-type socket orange peel, one side flat white, double-sided coating, 950双面0.35mm50mm岩棉, 容重50KG/m ² , H型插口一面橘皮纹一面白, 双面覆膜
Flooring 地板	Front and rear wall panels/前后墙板	950 double-sided 0.35mm50mm rock wool, bulk weight 50KG/m ² , one side of H-type socket orange peel, one side flat white, double-sided coating, 950双面0.35mm50mm岩棉, 容重50KG/m ² , H型插口一面橘皮纹一面白, 双面覆膜
	Concrete slab/水泥板	18mm*1177*2820mm
Electrical system 电气系统	Plastic floor/塑胶地板	1.6mm plastic floor with welds/1.6mm塑胶地板,带焊缝
	Electrical wiring is installed in strict accordance with moisture-proof specifications, and all electrical products must comply with CE certification. Connect the circuit according to the circuit engineering specifications, indoor: inlet line 62 national standard sheath line, outlet inlet line 62, air conditioning socket 42, socket 2.52, lighting 1.52, five hole single outlet 3, air conditioning socket 1, 2 LED lights.1 advanced eight-loop distribution box, a 2P32A leakage protector, a 10A circuit breaker, a 16AA circuit breaker, a 20A circuit breaker, 220V 50Hz 3P32A aviation plug 1. 电器布线,严格按照防潮规范安装,所有电器产品都需符合CE认证.根据电路工程规范连接电路,室内:进线6 ² 国标护套线,插座进线6 ² ,空调插座4 ² ,插座2.5 ² ,照明1.5 ² ,五孔单开插座3个,空调插座1个,LED灯2个.1个高级八回路配电箱,一个2P32A漏电保护器,一个10A断路器,220V 50HZ 3P32A 航空插头1个.	
Steel door 钢质门	High-grade steel door 970*1970mm, European standard fire lock.高档钢质门970*1970mm,欧标防火锁	
Plastic steel Windows 塑钢窗户	Glass 3.0mm thick, with anti-theft net/screen window, 920*1120mm,2 pieces 玻璃3.0mm厚,带防盗网/纱窗,920*1120mm,2个	



PRODUCT ADVANTAGES

产品优势



CONVENIENT LOADING AND UNLOADING/装卸方便

The prefabricated components of the mobile house are produced by factory standardization, which is not only convenient for installation and disassembly, but also enriches the layout of the mobile house and the functionality of the house by freely adding, reducing and changing the positions of doors, windows and partitions.

活动房部构件采用工厂标准化预制生产，不仅方便装卸，同时通过自由添加、减少、改变门、窗、隔断的位置丰富了活动板房的布局和房屋的功能性。



WIND AND EARTHQUAKE RESISTANCE/防风抗震

Have the ability to resist the wind speed of 10; The light prefabricated house structure makes the house show good integrity when it encounters an earthquake disaster with an intensity equal to or greater than 7 degrees of seismic fortification intensity.

具有的抵抗10级风速的能力；轻质活动板房结构使房屋在遇到等强于地震设防烈度7度的地震灾害时，表现出良好的整体性。



SIMPLE INSTALLATION/安装简单

The prefabricated houses are light in weight and easy to install. Six skilled workers can install 200m² houses in one day. The installation period is short, and it is especially suitable for the needs of emergency engineering.

活动板房质量轻，便于安装，6个熟练工人1天可安装200m²房屋。安装工期短、特别适用于应急工程的需要。



EFFICIENT SOUND INSULATION/高效隔音

Adopting special sound insulation materials and structural design, it has good sound insulation effect. It can effectively reduce the interference of external noise and provide a quiet living environment.

采用特殊的隔音材料和结构设计，具有良好的隔音效果。它能够有效减少外部噪音的干扰，提供一个安静的居住环境。



HEAT PRESERVATION AND MOISTUREPROOF/保温防潮

Adopt advanced thermal insulation materials and technology. At the same time, moisture-proof design can effectively avoid the problems of humidity and mildew, and ensure the dryness and comfort of living.

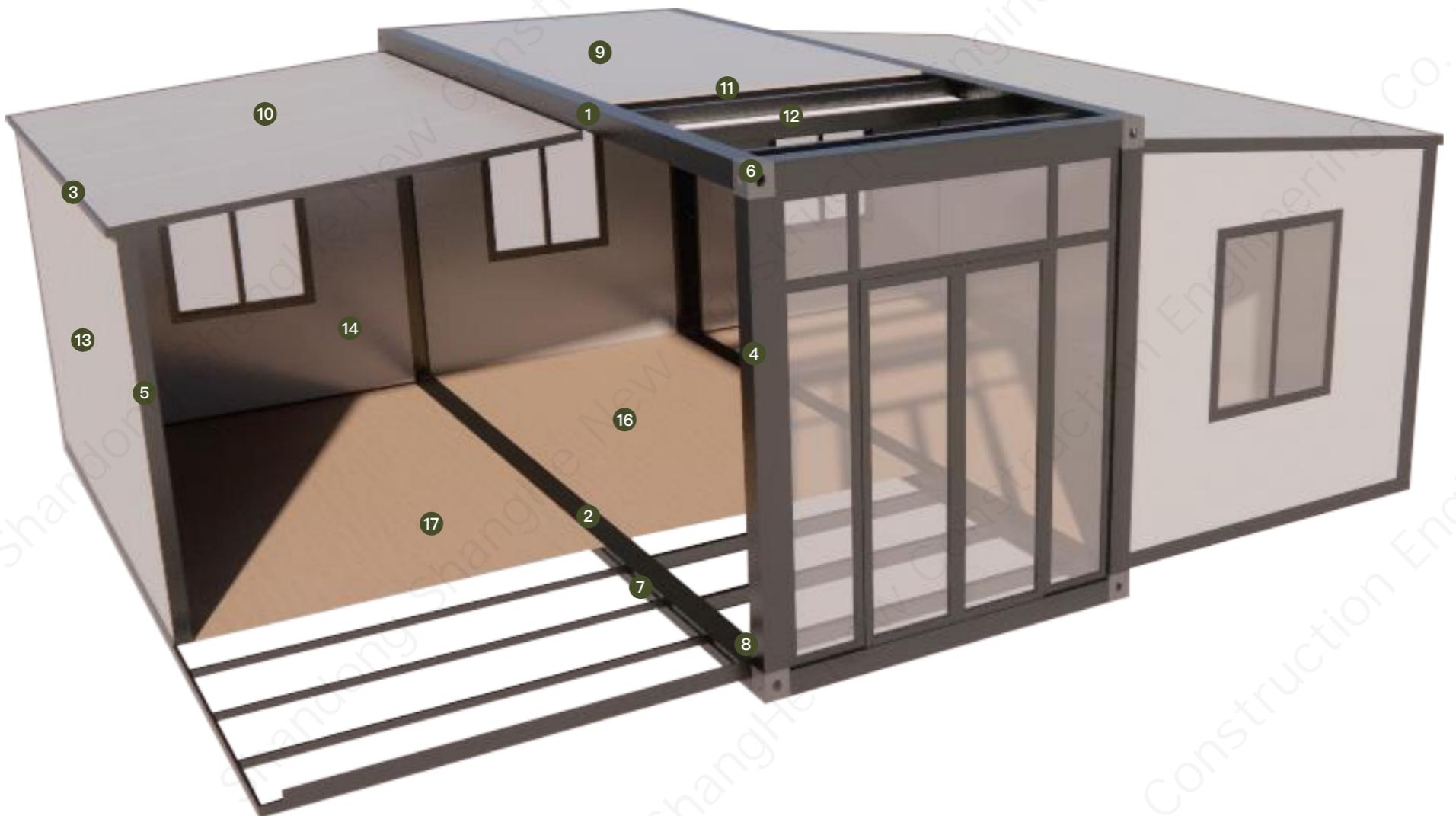
采用先进的保温材料和技术。同时，防潮设计可以有效避免潮湿和霉变的问题，保证居住的干燥和舒适。



LONG SERVICE LIFE/使用周期长

Repeated folding can reach 500 times and the service life can reach more than 15 years. Even if there are more than 10 construction sites in a year, the performance of the house is still reliable.

反复折叠可以达到500次，使用寿命可达15年以上。即使一年之内周转10几个工地，房屋性能依然可靠。



① Top side rail/顶侧梁	⑧ Overall frame protection paint/整体框架保护材料
② Bottom side beam/底侧梁	⑨ Glass floss insulation board/玻璃丝绵保温板
③ End side beam/端侧梁	⑩ Glass floss insulation board/玻璃丝绵保温板
④ Side wall frame/侧墙框架	⑪ External top plate/外部顶板
⑤ Subframe/次框架	⑫ Internal ceiling/内部吊顶
⑥ Hanger head/吊头	⑬ EPS Side wall/EPS侧墙板
⑦ Folding hinge/折叠合页	⑭ EPS Front and rear wall panels/EPS前后墙板

⑯ Internal partition/内部隔板
⑯ Fireproof glass magnesium floor/防火玻镁地板
⑰ Bamboo floors on both sides 两边竹木地板



Two-wing folding house is a three-in-one mobile house, which can be used for home and office as a whole and has super practicability! The size can be 20ft, 30ft, 40ft, the area ranges from 36m² to 56m², and there is a layout of 72m²! Toilets can be integrated together, and up to 4 bedrooms can be made. It is composed of folding mobile homes, and the frame structure of the house is firm. What's more worth mentioning is that transportation is also very convenient, and 40HQ container can hold two sets! Moreover, it can also be equipped with multiple bedrooms, kitchens and bathrooms, doors and windows, floors and sockets to meet a variety of needs!

双翼折叠房屋是一款三合一的移动房屋，可以整体居家、办公，实用性超强！尺寸可以做到20ft、30ft、40ft，面积由36m²到56m²不等，还有72平米的布局！卫生间可以集成在一起，最多可以做4个卧室。它是由折叠活动房组合房屋框架结构牢固。更值得一提的是，运输方面也特别便捷，40HQ货柜集装箱可以装两套！而且它还可以选配多个卧室、厨房和卫生间、门窗、地面地板和插座等配置，可以满足多种需求！

BASIC CONFIGURATION SHEET

基本配置单

20ft box size 20ft箱体尺寸	Shipping size/发货尺寸 (L*W*h)	5900(L)*2200(W)*2480(H)	Weight:2000KG/ set (±100KG)			
	Expanded dimensions/展开后尺寸 (L*W*H)	5900(L)*6300(W)*2480(H)				
30ft box size 30ft箱体尺寸	Shipping size/发货尺寸 (L*W*h)	9000(L)*2200(W)*2480(H)	Weight:3500KG/ set (±100KG)			
	Expanded dimensions/展开后尺寸 (L*W*H)	9000(L)*6300(W)*2480(H)				
40ft box size 40ft箱体尺寸	Shipping size/发货尺寸 (L*W*h)	11800(L)*2200(W)*2480(H)	Weight:5000KG/ set (±100KG)			
	Expanded dimensions/展开后尺寸 (L*W*H)	11800(L)*6300(W)*2480(H)				
Thermal insulation property/隔热性能	$\lambda=0.048\text{W/m}\cdot\text{k}$	Wind resistance/抗风性能	0.6KN/m ²			
Sound insulation property/隔音性能	≥30dB	Fire resistance/防火性能	Level A			
Water resistance/防水性能	Organized drainage, precipitation 16mm/min without leakage 有组织排水,降水量16mm/min无渗漏	Seismic performance/抗震性能	Lv.8			
Ground live load/地面活载	2.0KN/m ²	Roof live load/屋面活载	0.9KN/m ²			
Hanging head: 210*150*160, all galvanized./吊头:210*150*160, 全镀锌。						
Ground main beam 1: 80mm*100mm square steel, galvanized beam 2.5mm thick; The main beam of the floor is 2:180mm special-shaped C-shaped steel, galvanized beam is 2.5mm thick 地面主梁1:80mm*100mm方钢, 镀锌梁2.5mm厚;地面主梁2:180mm异型C型钢, 镀锌梁2.5mm厚						
Main frame/主框	Floor secondary beam: specification 60*40*1.8mm thick galvanized square steel or C-shaped steel; 地面次梁:规格60*40*1.8mm厚镀锌方钢或C型钢;					
	Column: specification 210*150mm, galvanized 2.5mm; 立柱:规格210*150mm, 镀锌2.5mm;					
Roof main beam 1: specification 80mm*100mm square steel, galvanized 2.5mm thick; 屋面主梁1:规格80mm*100mm方钢, 镀锌2.5mm厚;						
The main beam of the roof is 2:140m special-shaped C steel, galvanized 22.0mm thick 屋面主梁2:140mm异型C型钢, 镀锌22.0mm厚						
Roof secondary beam 40*40*1.5mm thick *7 galvanized square pipes or U-shaped steel, 20*40*1.2 square pipes *2 屋面次梁40*40*1.5mm厚*7根镀锌方管或U字钢, 20*40*1.2方管*2根						
Flank frame 侧翼框	P80*1.5mm special pipe /P65*1.5mm special pipe/L-shaped special galvanized steel plate, thickness 2.5mm P80*1.5mm专用管/P65*1.5mm专用管/L型特殊镀锌钢板,厚度2.5mm					
	50*70*1.5mm rectangular tube /L25*25*1.0 Angle steel 50*70*1.5mm矩管/L25*25*1.0角钢					
	2.5mm galvanized curved side beam 2.5mm镀锌折弯型边梁					
2.5mm galvanized bending guide flume 2.5mm镀锌折弯导水槽						
Surface treatment 表面处理	Electrostatic spraying plastic powder baking paint >80 Hm 静电喷涂塑粉烤漆≥80 Hm					
Wallboard 墙板	50mm thick 950 EPS composite purification board, block weight 14kg/m flame retardant, PE film attached, inside and outside flat. Color (White/grey optional) 50mm厚950型EPS复合净化板, 容重14kg/m ³ 阻燃, PE薄膜附着, 内外纯平。颜色(白/灰可选)					
Roof/屋顶	50mm thick 950 Rock wool sandwich board, bulk weight 14kg/m flame retardant. Structural adhesive + butyl tape, waterproof for the first time. External laminated single color steel tile, thickness 0.35mm, the second time waterproof. Ceiling: steel tile 50mm厚950型岩棉夹芯板, 容重14kg/m阻燃。结构胶+丁基胶带, 第一遍防水。外贴合单片彩钢瓦, 厚度0.35mm, 第二遍防水。吊顶:钢制压瓦					

Ground 地面	Structural plate 18mm cement board/结构板:18mm水泥板 Plastic floorpvc floor leather, thickness 1.6mm, hot melt caulking./塑胶地板:pvc地板革,厚度1.6mm,热熔填缝.
Door/门	Main entrance doorAluminum alloy split size >W1900mmxH2280mm/主入户门:铝合金对开尺寸>W1900mmxH2280mm
Window/窗户	PitholePlastic steel casement window size: W930mmxh930mmx6/标窗:塑钢平开窗尺寸:W930mmxh930mmx6
Electric/电气	The lampLED round row/strip ceiling light 15W/灯:LED圆形/条形吸顶灯15W Socket: European standard socket 3/插座:欧标插座3个 Switch:Single key switch;开关:单键开关 Distribution box:One electric box is secretly assembled./配电箱:暗装配电箱1个 Air switch: Euro standard voltage 20A leakage protector x1/空气开关:欧标电压 20A漏电保护器x1个 Household line: 3*6 square, air conditioning socket: 3*4 square, ordinary socket: 3*2.5 square, lighting: 2*1.5 square. 户线:3*6平方, 空调插座:3*4平方, 普通插座:3*2.5平方, 照明:2*1.5平方
Other/其他	WaterproofD-type rubber strip for each movable joint; Butyl waterproof tape/防水:各活动关节D型胶条;丁基防水胶带 Skirting lineBamboo and wood fiber 5mm/踢脚线:竹木纤维5mm

PRODUCT ADVANTAGES

产品优势



CREATIVE DESIGN/创新设计

The two-wing development house adopts innovative design concept to upgrade the traditional mobile home. When the house is unfolded, it presents a complete living space, and when it is folded, it becomes a small and convenient device. It not only gives the mobile home more flexibility, but also provides more possibilities for people's living space.
双翼拓展屋采用创新设计, 通过折叠机构实现居住空间灵活转换, 为活动房带来更多可能性。



INTELLIGENT CONTROL SYSTEM/智能控制系统

The two-wing folding trailer can also be equipped with an intelligent control system, and users can remotely control it through a mobile APP or an intelligent voice assistant. It is not only convenient and fast, but also can improve the quality of life of users.
双翼折叠活动房还可以配备智能控制系统, 用户可以通过手机APP或智能语音助手进行远程操控。不仅方便快捷, 还能提高用户的生活品质。



HEAT PRESERVATION AND MOISTUREPROOF/保温防潮

Adopt advanced thermal insulation materials and technology. At the same time, moisture-proof design can effectively avoid the problems of humidity and mildew, and ensure the dryness and comfort of living.
采用先进的保温材料和技术。同时, 防潮设计可以有效避免潮湿和霉变的问题, 保证居住的干燥和舒适。



ELEGANT APPEARANCE/美观大方

The two-wing folding trailer has a beautiful appearance and good visual effect. The appearance of the house can be customized according to the needs of users, so that each user can have a unique living space.
双翼折叠活动房外观美观大方, 具有良好的视觉效果。房屋的外观可以根据用户的需求进行定制, 使每个用户都能拥有独一无二的居住空间。



EFFICIENT AND PRACTICAL/高效实用

In the folded state, the house occupies small space and is convenient for transportation and storage. In the unfolded state, it can provide a complete living space to meet people's living needs.
在折叠状态下, 房屋占用空间小, 便于运输和存储。而在展开状态下, 则可以提供完整的居住空间, 满足人们的生活需求。



Features:

1. Floor: Fireproof glass magnesium floor 15mm.
2. t50mm glass wool (side top 50 SPS color steel plate)
3. Roof: 50mm rock wool sandwich board.
4. Window: Plastic steel security window.
5. Door: High quality security door 970*1970.



小20ft双翼折叠房屋/Mini 20ft Expandable container house



20ft双翼折叠房屋/20ft Expandable container house



40ft双翼折叠房屋/40ft Expandable container house





太空舱系列



Vessel houses series

PREFABRICATED CAPSULE ROOM

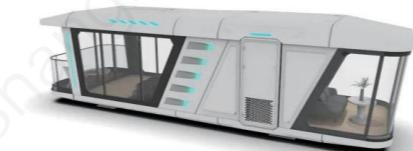
PORTABLE/COMFORTABLE/GREEN/CREATIVE
便携·舒适·绿色·创意

Prefabricated Capsule Room is one of the branches of modular building extended from container building. The house structure is built with carbon steel structure, and then it is designed and rebuilt again to realize 100% prefabrication of the factory.

太空舱移动房屋是由集装箱建筑延伸而来的模块化建筑的分支之一，以碳钢架构搭建起房屋构造，而在再次基础上加以设计再造，实现工厂100%预制。

Prefabricated Capsule Room is a kind of futuristic architectural design, which is inspired by the concepts of space capsule and spacecraft. The design concept of this house is to combine the living environment of human beings with the exploration of the universe to create a unique living experience.

太空舱房屋是一种未来主义建筑设计，其灵感来源于太空舱和宇宙飞船的概念。这种房屋的设计理念是将人类的生活环境与宇宙探索相结合，创造出一种独特的居住体验。

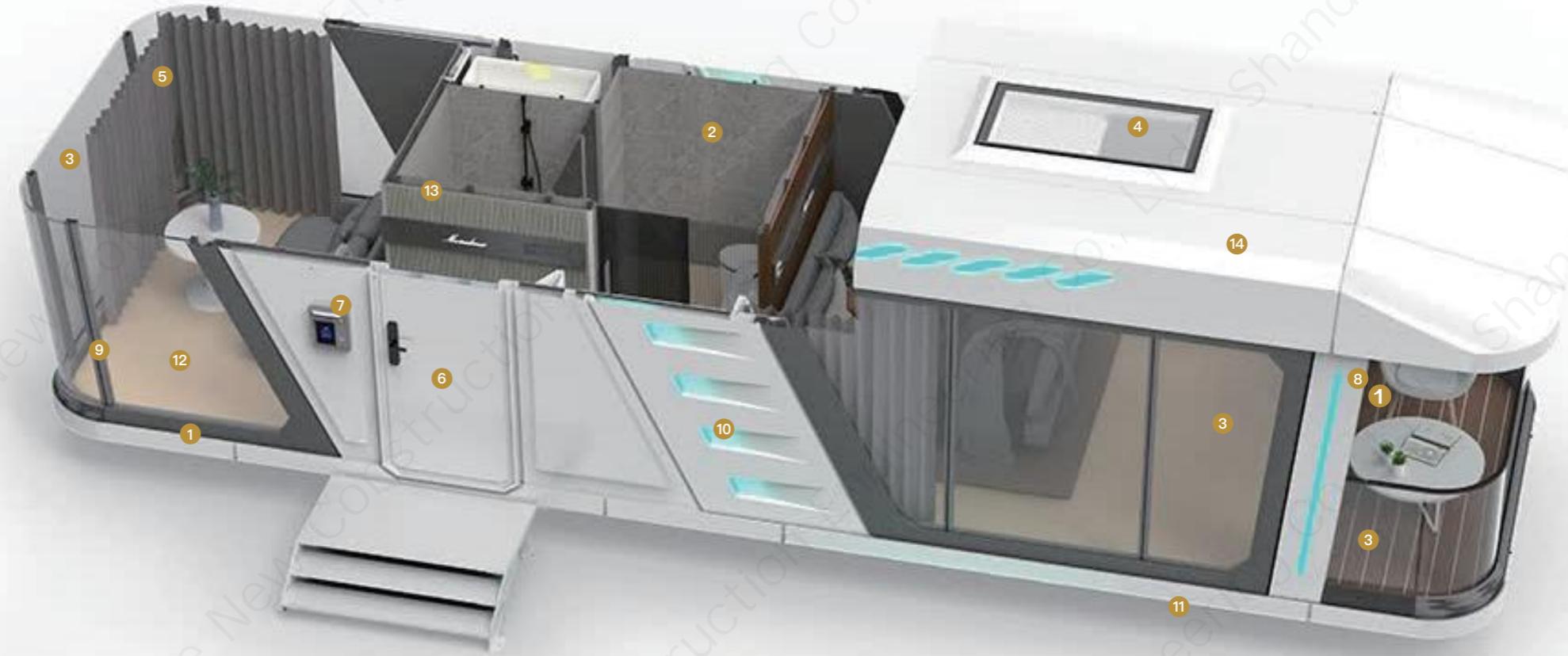


Prefabricated Capsule Room are usually rectangular, round or oval in design to minimize space waste and enhance the sense of security of occupants. The interior of the house usually includes basic living facilities such as bedroom, kitchen, bathroom and living room, and it is also equipped with high-tech intelligent systems, such as automatic lighting and temperature control systems and smart home equipment.

太空舱房屋通常采用长方形、圆形或椭圆形的设计，以最大限度地减少空间浪费，并增强居住者的安全感。房屋内部通常包括卧室、厨房、浴室和起居室等基本生活设施，同时还会配备高科技的智能化系统，如自动化的照明和温控系统、智能家居设备等。

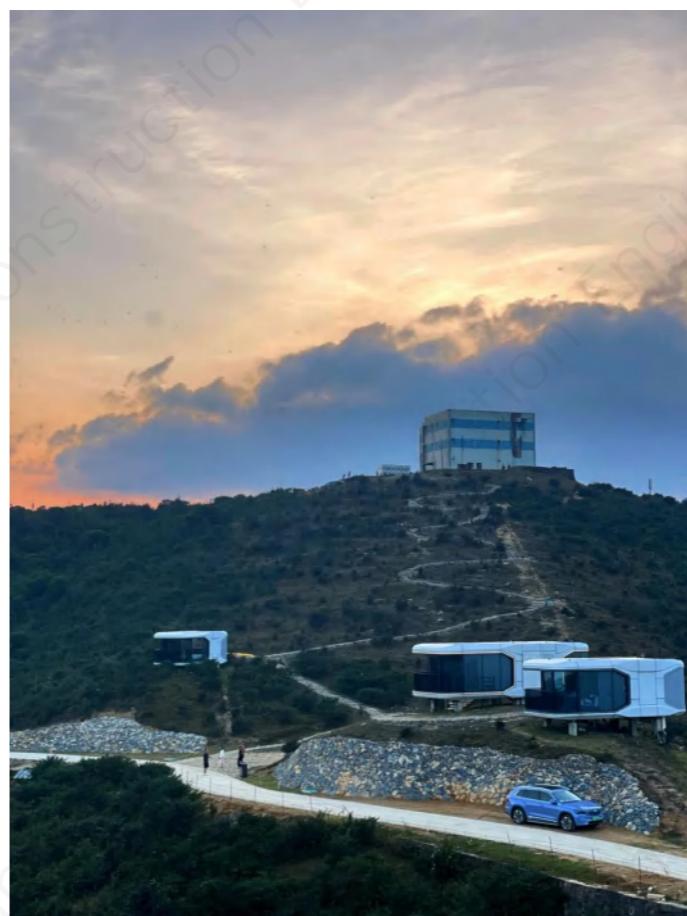
The shell of Prefabricated Capsule Room is usually made of materials with strong durability and good thermal insulation performance to ensure the comfort and energy efficiency of occupants. In addition, space capsule houses are usually equipped with renewable energy systems, such as solar panels and wind turbines, to achieve energy self-sufficiency.

太空舱房屋的外壳通常采用耐久性强、保温隔热性能好的材料制成，以确保居住者的舒适度和能源效率。此外，太空舱房屋还通常配备有可再生能源系统，如太阳能电池板和风力发电机等，以实现能源的自给自足。



*三种尺寸可选:11.5m/9.4m/8.5m,我们也接受更多尺寸定制;Three sizes are available: 11.5m/9.4m/8.5m, and we also accept more size customization.

① Hot-dip Galvanized Steel Structure Skeleton/热镀锌钢结构骨架	⑧ Balcony aluminum sliding door (with door lock)/阳台铝合金推拉门(含门锁)
② Polyurethane sandwich board/聚氨酯夹芯板	⑨ Glass decoration bar :SUS304 stainless steel or all aluminum alloy/玻璃装饰条:SUS304不锈钢或全铝合金
③ Multi-layer tempered Low-E insulating glass/多层钢化Low-E中空玻璃	⑩ Ambient light strip (Surround Styling wheelchair)/外围氛围灯带(环绕造型轮椅)
④ Smart electric sunshade/智能电动遮阳帘	⑪ Support foot: load-bearing support foot/支撑脚:承重支撑脚
⑤ Smart blackout curtains/智能遮光窗帘	⑫ Cement fiber +SPC environmental protection composite floor/水泥纤维+SPC环保复合地板
⑥ All aluminum custom capsule doors/全铝合金定制太空舱门	⑬ Carbon fiber integrated wall panel, carbon fiber wood finish/碳基纤维集成墙面板、碳纤木饰面
⑦ Smart door lock (waterproof)/入户智能门锁(防水)	⑭ Honeycomb aluminum panel (1200mm*2400mm) integrated ceiling/蜂窝铝大板(1200mm*2400mm)集成吊顶





 Product specification/产品规格

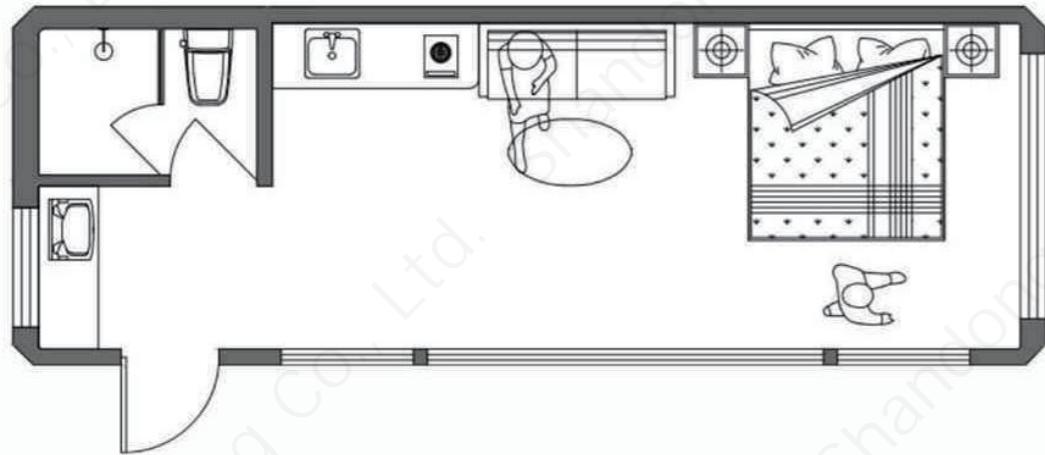
L*W*H(m) : 9.3*3.2*3.2

Floor area/建筑面积(m²) : 29.8

 Product standard configuration/产品标配

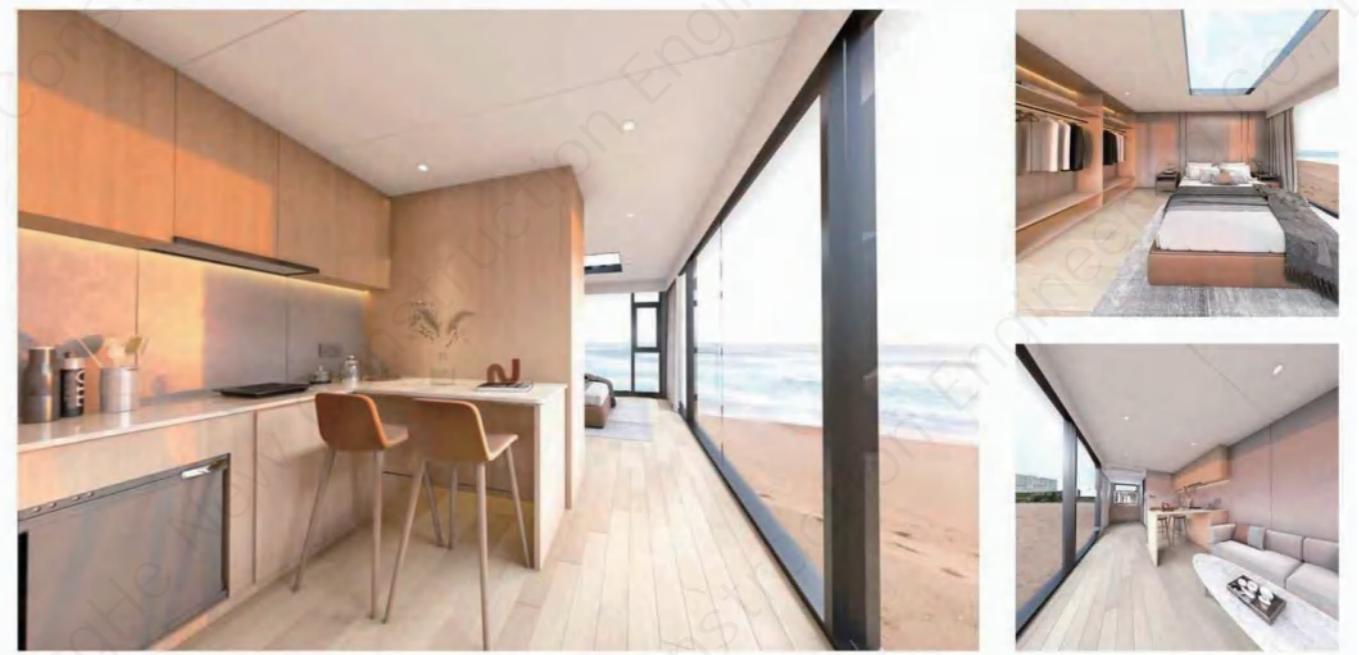
Intelligent access control 智能门禁	Standard flush entry door 标准平开入户门	Stone plastic environmental protection floor 石塑环保地板
Fresh air system 新风系统	Electric floor heating 电热地暖	Full house screen door 全屋纱窗门
Card power supply/card power supply panel 插卡取电/取卡断电面板	Variable frequency heating and cooling air conditioning system变频冷暖空调系统	

 House plan/户型平面图



The apartment type is flexible and changeable/户型灵动可变

Support product appearance color, latte custom/支持产品外观颜色、拉花定制

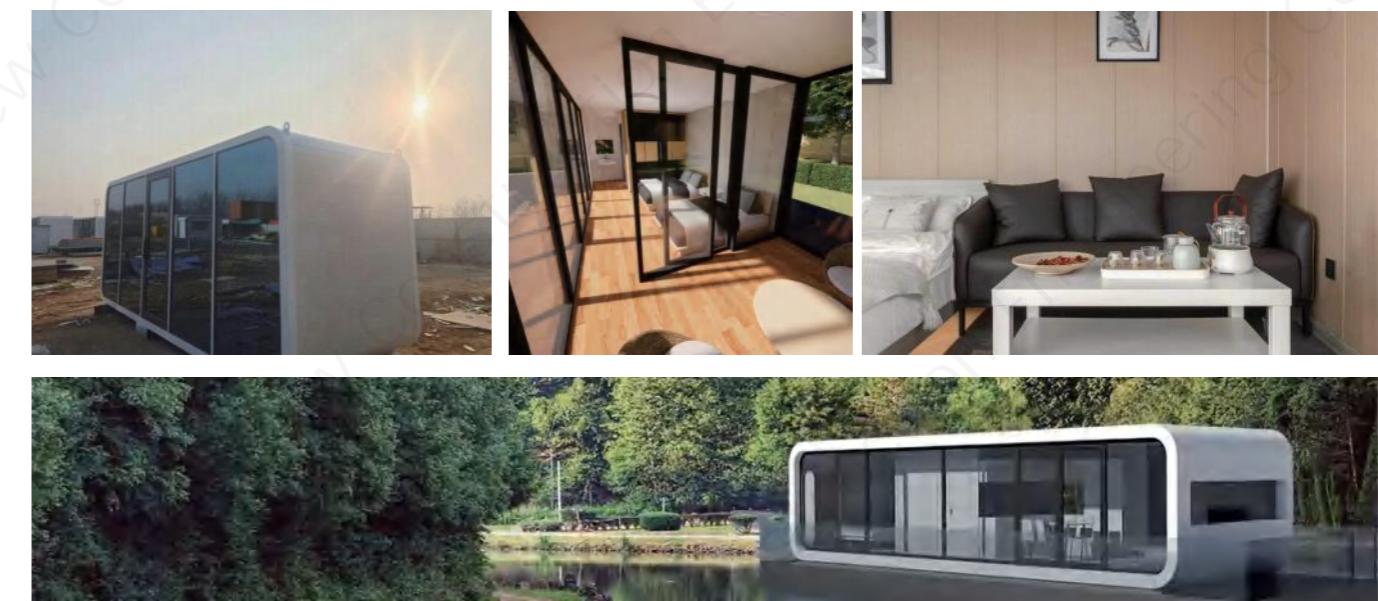


BASIC CONFIGURATION SHEET

基本配置单

Bottom/底部	Galvanized square pipe/镀锌方管	80X160X2.2	The hardening interval should not exceed 40cm 加固间隔不超过40cm
		40X80X1.5	
	Cement pressure board	1.6cm	
Wall/墙体		1cm	The middle frame support interval is not more than 60cm 中间框架支撑间隔不大于60cm
	Galvanized square pipe/镀锌方管	80X160X2.2	
		80X80X1.5	
Roof/屋顶	Galvanized square pipe/镀锌方管	50X50X1.2	The middle frame support interval is not more than 60cm 中间框架支撑间隔不大于60cm
		30X30X1.0	
	Exterior wall custom carved metal panels 外墙定制金属雕花板	1.6cm	
Doors and Windows 门窗	Timber square 木方	2X3	The middle frame support interval is not more than 60cm 中间框架支撑间隔不大于60cm
	Interior wall bamboo wood fiberboard 内墙竹木纤维板	0.7cm	
	Thermal insulation rock quilt 保温岩棉被	7.5cm	
Paint/油漆	Galvanized square pipe/镀锌方管	80X160X2.5	The middle frame support interval is not more than 60cm 中间框架支撑间隔不大于60cm
		40X80X1.5	
	50X50X1.2		
Switch/开关	Galvanized, stainless steel special paint 镀锌、不锈钢专用油漆	Alloy finish (low + top) 合金漆面(低+面)	The middle frame support interval is not more than 60cm 中间框架支撑间隔不大于60cm 二层屋顶中间起拱2公分 (不影响美观便于泄水)
	Five holes/五孔	Industry standard/行业标准	
	16A air conditioner switch/16A空调开关	Industry standard/行业标准	
	Switch/开关	Industry standard/行业标准	

Electricity/电	Main line/主线	6m ² copper sheath/6m ² 铜护套	All lines through the pipe, ground, separate leakage protector, easy maintenance 所有线路穿管,走地线,单独漏电保护器,便于检修
	Switch socket/开关插座	4m ² copper sheath/4m ² 铜护套	
	Lamp line/灯线	1.2m ² copper sheath/1.2m ² 铜护套	
	Ground wire/接地线	1.0m ² single sheath/1.0m ² 单股护套	
Power distribution 配电	Conduit/穿线管	Black hose/黑色软管	Carry out construction as required 按要求进行施工
	Leakage protector/漏电保护器	Light switch circuit/灯开关一路	
	Leakage protector/漏电保护器	Socket road/插座一路	
	Leakage protector/漏电保护器	Air conditioning socket/空调插座一路	
Roof/屋顶	Leakage protector/漏电保护器	Master open/总开	Alternative 选配
	Square tube/方管	40X60X1.2	
		30X50X1.0	
	Stone plastic wall panels/石塑墙板	0.7mm	
	Titanium alloy door/钛合金门	Industry standard/行业标准	
	Water heater/热水器	50L	
	Hot air, exhaust type bath/热风、排风式浴霸	Industry standard/行业标准	
	Shower head/花洒	Industry standard/行业标准	
	Toilet/马桶	Industry standard/行业标准	
	Wash basin/洗手台	Industry standard/行业标准	







Product specification/产品规格

Main material: polymer PC endurance plate
主体材料:高分子PC耐力板

Light transmittance :91% light transmittance, UV protection
透光性:91%透光率,防紫外线

Impact resistance: 200 times that of ordinary glass
抗冲击:普通玻璃的200倍

Safety and environmental protection: recyclable, no odor
安全环保:可回收、无异味

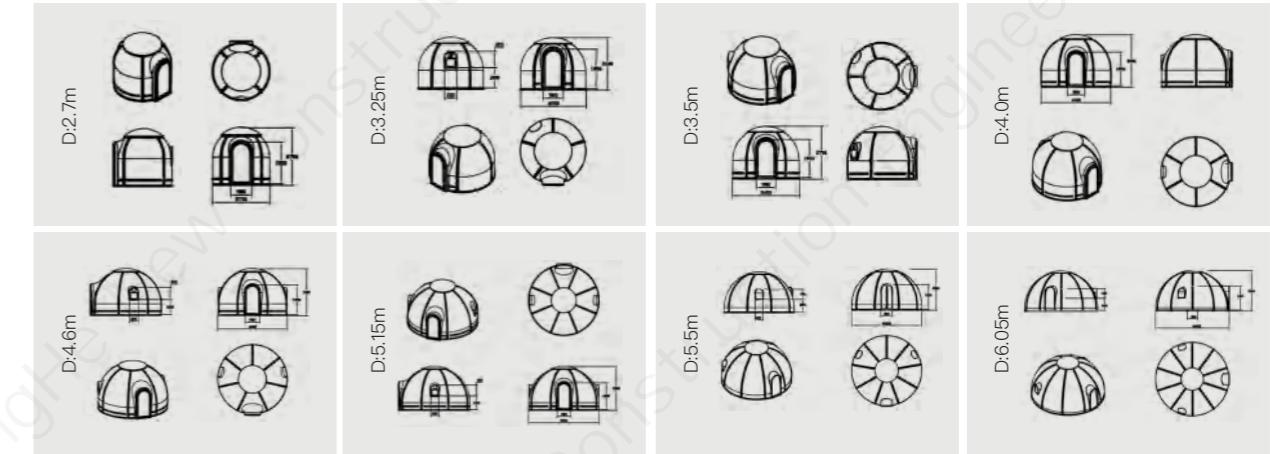
Sound insulation: 3~4DB higher than glass (highway sound insulation material)
隔音:高于玻璃3~4DB(高速路隔音材料)

Flame resistance: B1 class, refractory material
阻燃性:B1级,难燃烧材料

Wind resistance rating: 12~15 (depending on the ground platform)
抗风等级:12~15级(视地面平台而定)

Applicable temperature: -40°C to 120°C
适用温度:-40°C 至 120°C

Various sizes/尺寸多样



If you need more sizes, please consult the sales staff/如您需要其他更多尺寸可咨询业务人员



Main material: polymer PC endurance plate
主体材料:高分子PC耐力板

Impact resistance: 200 times that of ordinary glass
抗冲击:
普通玻璃的200倍

Applicable temperature: -40°C to 120°C
适用温度: -40°C至120°C

Wind resistance rating: 12-15 (depending on the ground platform)
抗风等级:12级-15级(视地面平台而定)

Light transmittance: 91% light transmittance, UV protection.
透光性:91%透光率,防紫外线

Safety and environmental protection: food grade, recyclable, no odor
安全环保:食品等级、可回收、无异味

Flame retardant: B1 class, refractory material
阻燃性:B1级,难燃烧材料

Sound insulation: 3-4DB higher than glass, highway sound insulation material
隔音:高于玻璃3-4DB,高速公路隔音材料

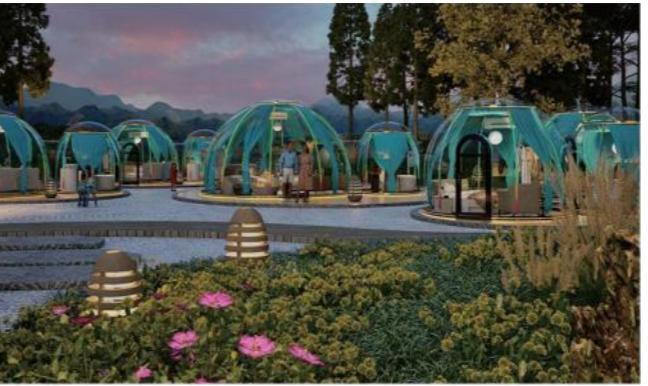


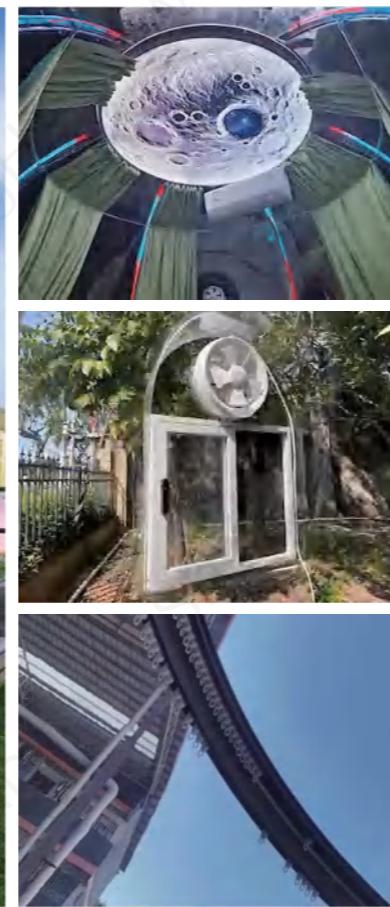
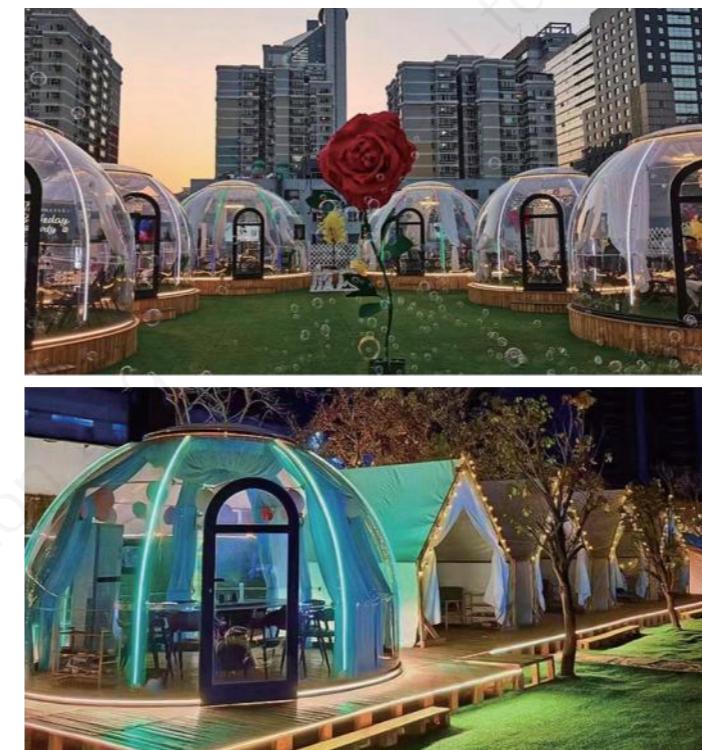
In the range of minus 20°C -100 °C will not cause deformation and other quality degradation
在零下20°C—正100°C范围内不会引起变形等品质劣化

The sound insulation effect is good, and it is the first choice material for expressway sound insulation wind barrier, with a thickness of 3-4MM, which can be attenuated by more than 20 decibels.
隔音效果佳, 是高速公路隔音风屏障首选材料3-4MM厚度板材, 实测可衰减20分贝以上

The impact strength of PC is about 300 times that of ordinary glass.
PC抗冲击强度是普通玻璃的300倍左右

The resin fatigue yellowing caused by sunlight and ultraviolet rays is prevented, and the surface co-extrusion layer has chemical bonds to absorb ultraviolet rays and convert them into visible light.
防止太阳光紫外线引起的树脂疲劳变黄, 表面共挤层具有化学键吸收紫外光并转化为可见光





CONTAINER ROOM SERIES

集装箱房系列



PRODUCT INTRODUCTION

产品介绍

Container house is a kind of building system that has hit the fashion trend again and again. It can be moved anywhere at any time, bringing more convenient and comfortable life for people. The solar photovoltaic panel can be used for indoor electricity, the solar water heater can be used for heating and water supply, and the discharge of indoor shower and domestic water is purified by the sewage treatment system for reuse. Container houses of different sizes can be made according to the number of personnel, and different interior decoration can be made according to personal needs, which can be used for a long time with one investment.

集装箱房屋，是一种又一次撞击时尚潮流的建筑体系，可随时随地移动到各地，为人们带来更方便的舒适生活。通过太阳能光电板可供室内用电，太阳能热水器可供暖、供水，室内淋浴、生活用水的排放由污水处理系统进行净化，以便再次利用。根据人员数量的不同，可制作大小不一的集装箱房屋，根据个人需要可做不同内饰装修，一次投资长久使用。



5 Installation is complete 安装完成



1 Install Bottom 安装底部



4 Install wallboard 安装墙板



2 Install corner post 安装角柱



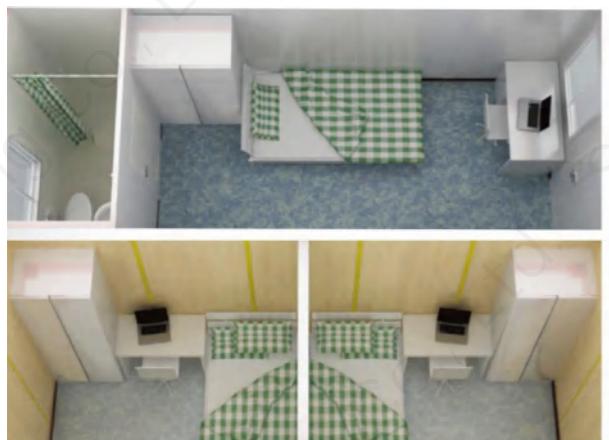
3 Install Top 安装顶部

PRODUCT FUNCTIONS

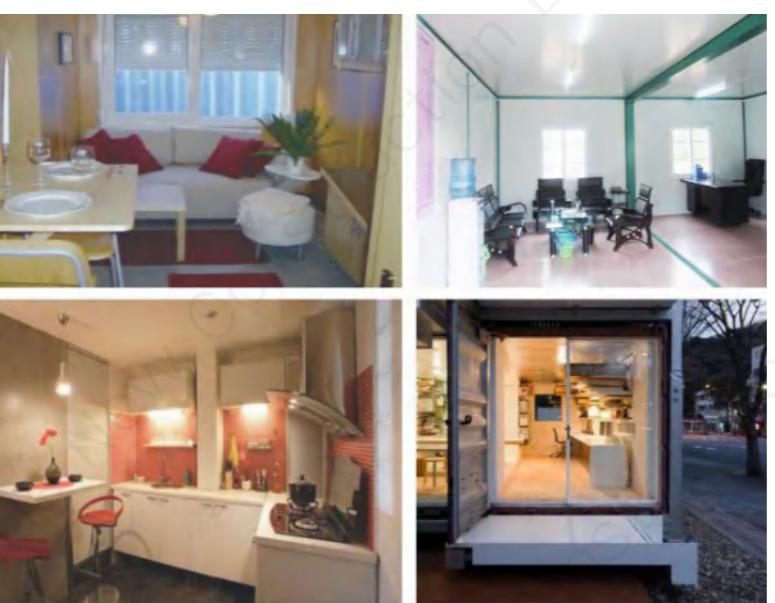
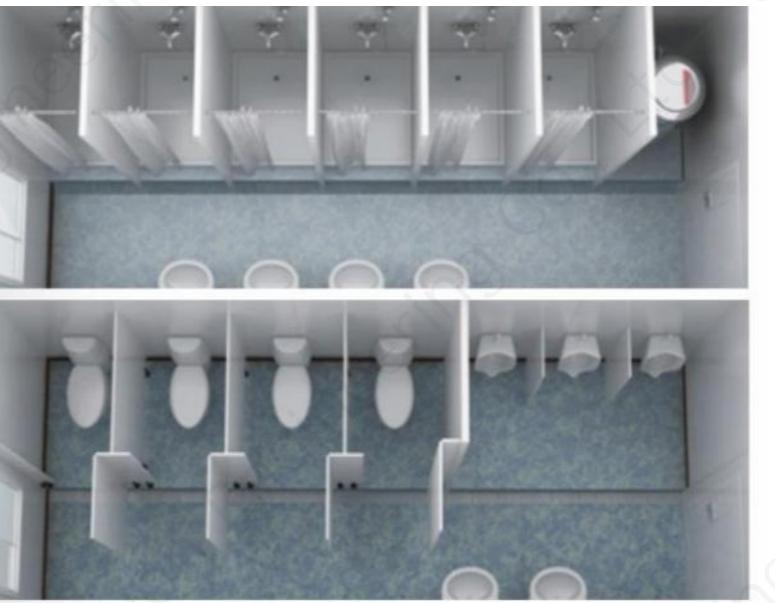
产品功能



TEMPORARY ACCOMMODATION 住宿



OFFICE LOUNGE 办公休息室



STEEL STRUCTURE PRODUCT SERIES

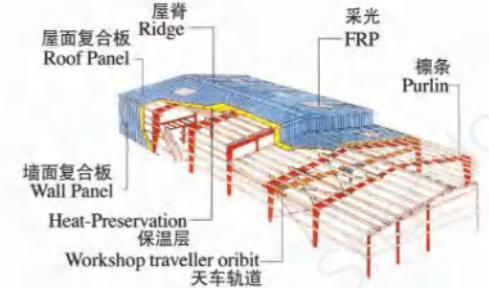
钢结构产品系列

One-stop service of energy-saving insulation system 节能保温系统一站式服务

PRODUCT INTRODUCTION 产品介绍

The installation works of Shanghe Construction Engineering Company mainly include: single-layer to multi-storey steel structure construction works. Railways, highways and urban bridges, industrial platforms and supports, removable and movable institutions, etc. These structures are used in modern industrial and civil buildings, official buildings, municipal and road and bridge projects. It is characterized by high strength, light weight and short construction period, with an annual production capacity of 20000 tons.

尚禾建筑工程企业安装工程主要包括：单层至多层钢结构建筑工程。铁路、公路及城市桥梁、工业平台及支架、可拆卸及搬移的机构等等。这些结构形成式应用于现代工业与民用建筑、公官建筑、市政及路桥工程。具有强度高工、重量轻、工期短等特点，年生产能力 2 万吨。

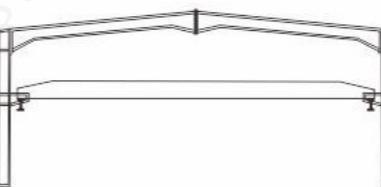


Constant section steel structure beam and column, with local haunches at the joints, and many changes in roof slope, are suitable for buildings with small span. The column base can be twisted or rigidly connected, and the processing and installation is convenient and fast.

等截面钢结构梁柱，节点处局部加腋，屋面坡度变化多，适用于跨度较小建筑，柱脚可绞接可刚接，加工安装方便快捷

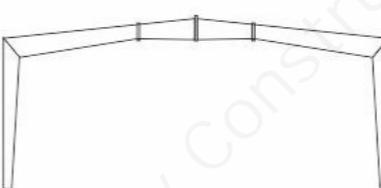


Span 跨度	Height 高度	Grade of slope 坡度	Intercolumniation 柱距
9M-18M	3M-7M	1/20 1/10 1/5 1/3	6M-9M



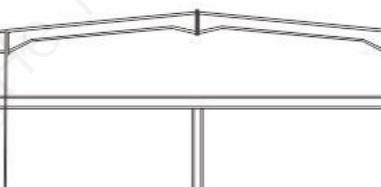
For the light steel structure system with crane, the column is of equal section beam, and the column base can be rigidly connected according to DMG-1, BMG-1 and BPG. 带吊车的轻钢结构系统，柱为等截面梁可按 DMG-1, BMG-1, BPG 形式选用柱脚刚接

Hoisting capacity 重量	Span 跨度	Height 高度	Grade of slope 坡度	Intercolumniation 柱距
Q ≤ 32T	12M-24M	3M-8M	1/20 1/10 1/5	6M



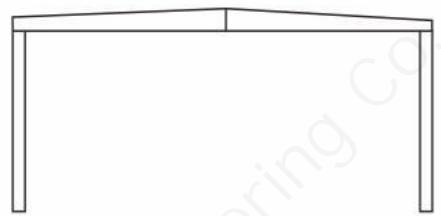
Variable section steel structure beam and column, high wall bolt connection span at the joint is large, the slope of the layer is small, saving indoor space, and the column base is hinged. 变截面钢结构梁柱，节点处高墙螺栓连接跨度大，层面坡度较小，节省室内空间，柱脚铰接

Span 跨度	Height 高度	Grade of slope 坡度	Intercolumniation 柱距
18M-36M	3M-9M	1/20 1/10	6M-9M



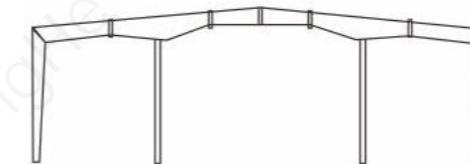
For the light steel structure system with interlayer, the column is the roof beam with equal section, which can be selected as the column base rigid connection floor beam in the form of DMG-1 and BMG. The maximum crotch 1 ≤ 12M 带夹层的轻钢结构系统，柱为等截面屋面梁可按 DMG-1, BMG 形式选为柱脚刚接楼面梁最大跨 1 ≤ 12M

Span 跨度	Height 高度	Grade of slope 坡度	Intercolumniation 柱距
12M-24M	6M-10M	1/20 1/10 1/5	6M



Equal-section steel structural column, variable-section steel beam, small slope of beam-column hinge layer, small applicable span, rigid connection of column base
等截面钢结构柱, 变截面钢梁, 梁柱铰接层面坡度小, 适用跨度小, 柱脚刚接

Span 跨度	Height 高度	Grade of slope 坡度	Intercolumniation 柱距
9M-18M	3M-8M	1/20	6M



The method of adding 1-4 swing columns in the middle of the span can make the column foot hinge with a larger span
跨中加 1-4 根摇摆柱的方式可使跨度更大柱脚铰脚

Span 跨度	Height 高度	Grade of slope 坡度	Intercolumniation 柱距
72M-180M	3M-8M	1/20 1/10	6M-9M

VILLA HOUSE SERIES

別墅房系列



One-stop service of energy-saving insulation system 节能保温系统一站式服务

METAL COVER BOARD 金属雕花板



PRODUCT INTRODUCTION 产品介绍



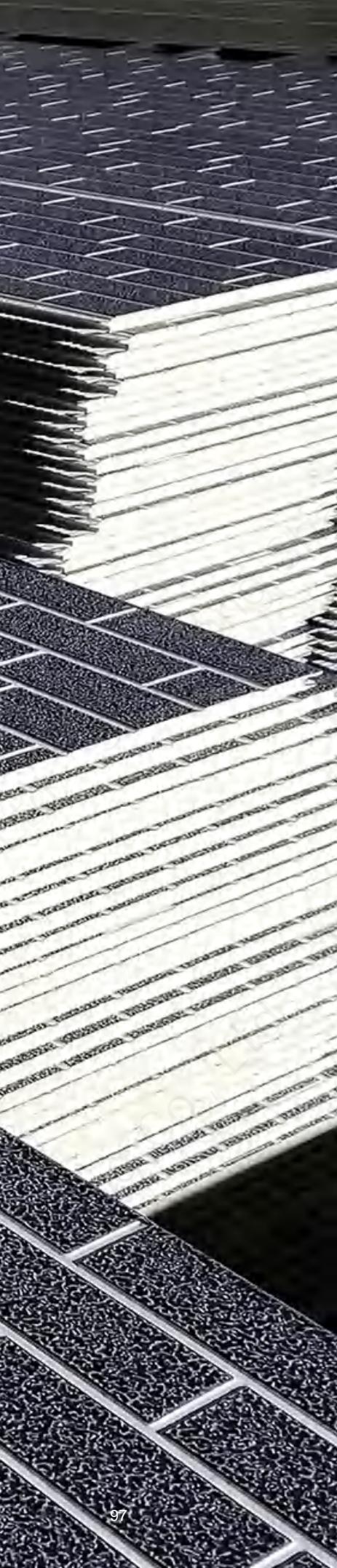
The surface of the metal engraved plate is a special color coated embossed metal plate treated with special coating. The middle layer is a hard high-density polyurethane foam insulation heat-insulating layer treated by flame retardant treatment, and the bottom surface is an aluminum foil protective layer which functions as a heat insulation and moisture proof.

The wall panel has the characteristics of thermal insulation, waterproof and flame retardant, light and shockproof, sound and noise reduction, green environmental protection, beautiful and durable.

The board assembly method is simple. The way of installing is convenient, and it is not restricted by the season or environment, and it is suitable for all seasons.

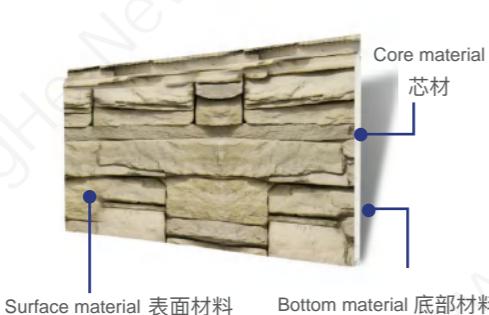
金属雕花板表面是经特殊涂层处理过的优质彩色浮雕饰面金属板，中间层是经阻燃处理的硬质高密度聚氨酯发泡保温隔热层，底面是起到隔热保温防潮作用的铝箔保护层。

墙板具有保温隔热、防水阻燃、轻质抗震、隔音降噪、绿色环保、美观耐久等特性，板体组装方式简单、施工便捷，不受季节环境限制，四季皆宜。

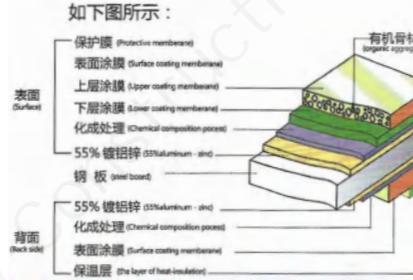


别墅房系列

PRODUCT ADVANTAGES 产品优势



ORGANIZATION CHART 组织结构图



Material of surface: The outer layer is metal, which is pressed by galvanized steel sheet (containing 55% aluminum, 43% zinc) and does not rust for many years. The steel coating is made of high-quality Nippon Paint and will not fade for a long time.

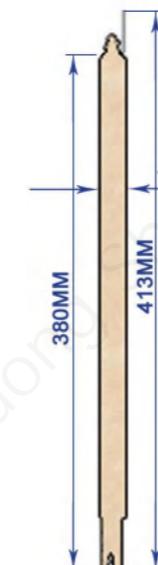
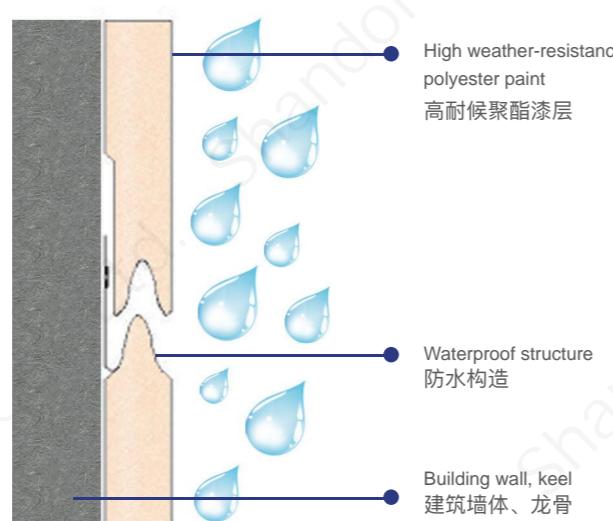
Core material: The hard high-density polyurethane foam insulation layer treated by flame retardant integrates heat preservation, fire prevention, moisture resistance and high hardness, which is incomparable with ordinary foamed polyurethane.

Material of bottom: The back of metal plate is made of glass fiber cloth with excellent waterproof performance, which can effectively block the intrusion of water vapor into the board and building墙体, and reflect the heat source of the house to enhance the heat preservation effect.

表面材料 外层为金属层,采用镀铝锌钢板(含55%铝, 43%锌)压制而成,长年不生锈。钢板涂层采用高品质立邦漆,经久不褪色。

芯材: 经阻燃处理的硬质高密度聚氨酯发泡保温层,集保温、防火、防潮、高硬度于一体,是普通发泡聚氨酯所不能比的。

底部材料: 背面采用的是隔水性能极好的铝箔保护层,能有效阻隔水汽侵入板材和建筑墙体,并反射房屋热源,增强保温效果。



Inspection items 检验项目

Core material 检验结果	Core material 依据标准
Surface density (core material) 表面密度 (芯材) 42kg/m ³	GB/16343-2009
Compressive strength (core material) 压缩强度 (芯材) 295kpa	GB/T8813-2008
Thermal Conductivity 导热系数 Average temperature 平均温度: 10°C 0.022W/ (m·k) Average temperature 平均温度: 25°C 0.024W/ (m·k)	GB/T10295-2008
Water absorption 吸水率 0.8%	GB/T8810-2005
Vertical tensile strength (siding) 垂直于板面的抗拉强度 (复合板) 1.6kpa	JG/T149-2003
Flexual capacity (siding) 弯曲承载力 (复合板) Vertical 纵向 5.44Mpa Horizontal 横向 3.88Mpa	GB/T9341-2008
Salt spray resistance (steel sheet) 耐盐雾 (钢板) No damage within 500h (neutral salt spray) 500h 无损伤 (中性盐雾)	GB/T1771-2007
Acid resistance (steel sheet) 耐酸性 (钢板) No abnormality within 24h (5% sulfuric acid) 24h 无异常 (5% 硫酸)	GB/T9274-1988
Alkali resistance (steel sheet) 耐碱性 (钢板) No abnormality within 24h (5% sodium oxychloride) 24h 无异常 (5% 氯氧化钠)	GB/T9265-2009
High temperature resistance (steel sheet) 耐高温 (钢板) 600°C	GB/T8332-2008
Percentage of close area (core material) 闭孔率 (芯材) 99.70%	GB/T20284-2006
Al-Zn coating content 镀铝锌层含量 (55% aluminum, 43% zinc) 55-57g/ m ² (55% 铝, 43% 锌)	GB/T13475-2008
Wind pressure resistance (siding) 抗风压 (复合板) 10kpa the sample is not damaged 10kpa 试样未破坏	JG149-2003
Horizontal firing (core material) 水平燃烧 (芯材) HF-1	GB/T8332-2008
Combustion performance 燃烧性能 B 级 Grade B	GB/T20284-2006
Heat transfer coefficient 传热系数 1.50W (m ² ·k)	GB/T13475-2008
Airborne sound insulation 空气声隔声量 25dB	GB/T19889.3-2005 GB/T50121-2005
Formaldehyde emission (siding) 甲醛释放量 (复合板) Non-detected 未检出	GB/T18580-2001
Fluorescent UV lamp aging (steel sheet) 荧光紫外灯老化 (钢板) No abnormality in appearance 外观无异常	GB/T16422.3-2014



COMPARISON OF THERMAL INSULATION EFFECT BETWEEN POLYURETHANE AND OTHER MATERIALS

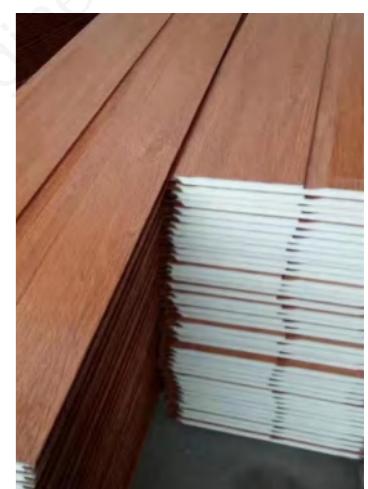
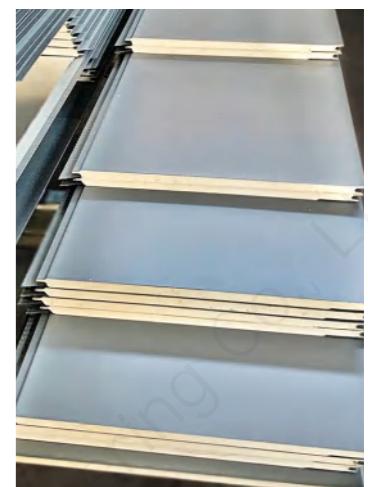
聚氨酯与其他材料保温效果对比



ADVANTAGE PERFORMANCE 优势性能

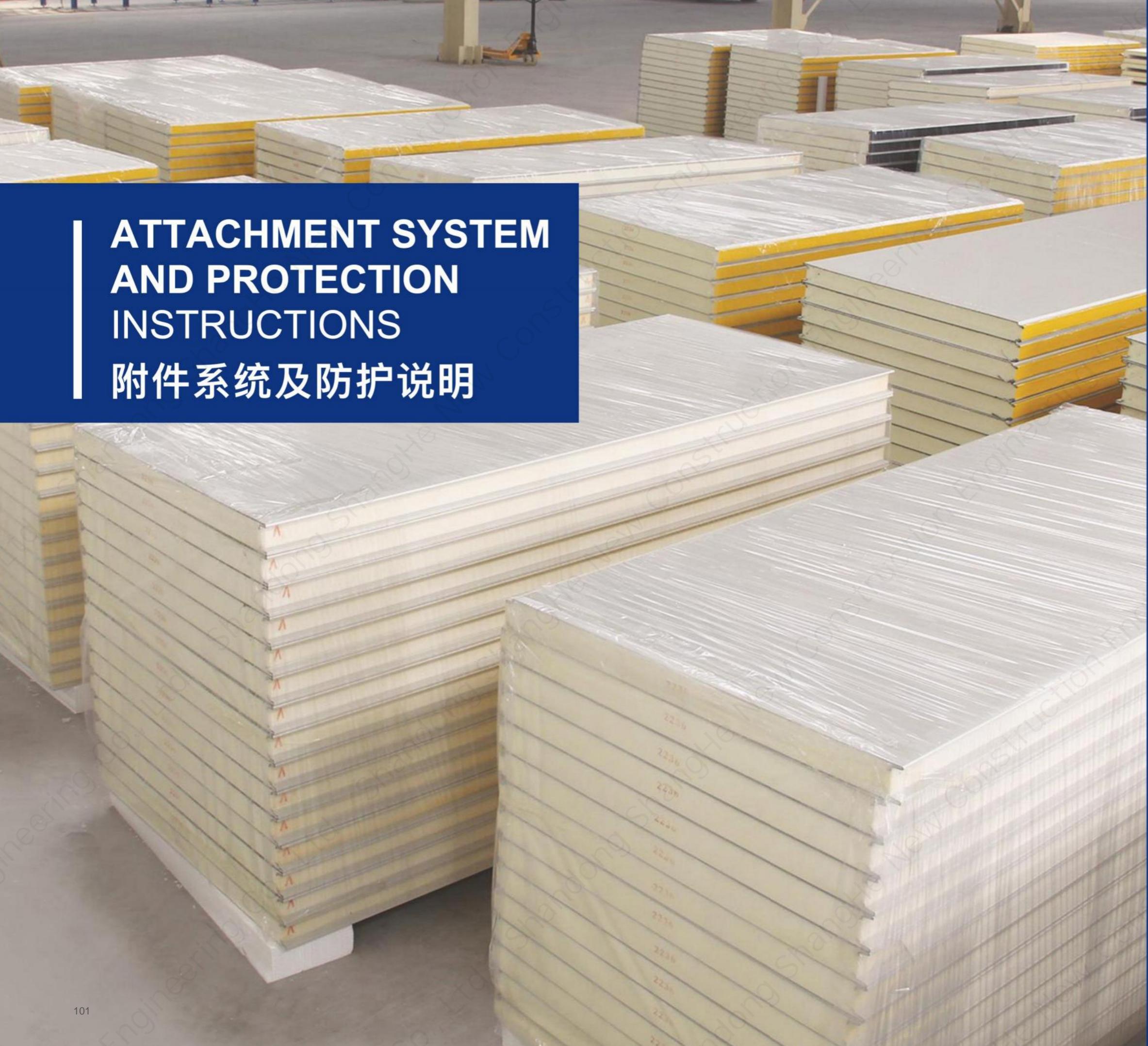
- The rmal insulation:** The metal carved board has excellent thermal insulation performance, which can greatly reduce the energy consumption of heating and cooling, and save energy expenditure. Compared with traditional exterior wall thermal insulation materials, the product has higher cost performance.
- Fire-proof and flame-retardant:** the surface of the board is a metal layer made by a special process, the inner core is a hard high-density polyurethane foam insulation layer treated by flame retardant, the bottom The layer is made of fireproof and moisture-proof fiber cloth, and triple protection is more reassuring.
- Water-proof and moisture-proof:** The excellent self-structure of the metal carved board and the compact concave-convex plug-in and buckle-groove type installation between the boards can avoid the structural damage caused by rain, snow, frost, melting, etc. after installation, the possibility of water seepage on the wall surface can be eliminated.
- Sound insulation and noise reduction:** The core material in the middle of the metal carved board is a heat insulation and sound insulation layer made of high-density polyurethane foam, and its interior is an independent closed air bubble structure with good sound insulation effect.
- Efficient construction:** The installation method of metal carved board is simple and fast, and is not restricted by seasonal climate and geographical environment. Can obviously shorten the construction progress, save the construction cost and reduce the comprehensive cost. At the same time of heat preservation and insulation, the external wall load is reduced to the maximum extent, and the availability of space and land is increased.
- Environmental protection and durability:** The metal carved board has stable chemical and physical structure, does not decompose and mildew, has no radiation and has no pollution. It can be flexibly disassembled and reassembled for use, and the leftover materials can be recycled. It can reduce construction waste during the construction process, and is easy to clean and durable.
- Anti-shock and anti-crack:** The metal carved board has light weight, high strength and good impact resistance. The advantage of light weight not only reduces the burden of the building itself, but also greatly reduces the impact of the earthquake on the building. The board is installed on a building with light steel structure, and has strong integrity, earthquake resistance, crack prevention, firmness and safety.
- Strong decoration:** The metal carved board has real relief patterns and rich color combinations, giving more play to the architectural design and highlighting its taste and taste. This flexible method of disassembly and assembly makes it easy to replace the wall design.

- 保温隔热:** 金属雕花板具有优异的保温隔热性能，能大幅度降低采暖和制冷能耗，节省能源支出，与传统外墙保温材料相比，产品性价比更高。
- 防火阻燃:** 板材表面是经特殊工艺制作的金属层，内芯是经阻燃处理的硬质高密度聚氨酯发泡保温层，底层为防火防潮纤维布，三重保护更安心。
- 防水防潮:** 金属雕花板优良的自身结构及板材间紧凑的凹凸插接扣槽式的安装方式，能避免雨、雪、冻、融等造成的结构破坏，安装后可消除墙面渗水的可能。
- 隔音降噪:** 金属雕花板中间的芯材为高密度聚氨酯发泡构成的保温隔音层，其内部为独立的密闭式气泡结构，具有良好的隔音效果。
- 高效施工:** 金属雕花板安装方式简单、快捷，不受季节气候和地理环境限制。能明显缩短工程进度，节约建筑成本，降低综合造价。在保温隔热的同时，最大限度地降低了外墙负荷，增加空间及土地的可利用性。
- 环保耐用:** 金属雕花板具有稳定的化学和物理结构，不会分解霉变、无辐射、无污染。灵活拆卸可重新支装使用，边角料也可回收再利用，施工过程中减少建筑垃圾，并且易清洗、经久耐用。
- 耐震防裂:** 金属雕花板质量轻、强度高、耐冲击性能好。质轻的优点，不仅降低了建筑本身的负担，并且很大程度降低了地震对建筑物的影响。该板安装在轻钢结构的建筑上，整体性强，抗震防裂，坚固安全。
- 装饰性强:** 金属雕花板拥有真实的浮雕花纹和丰富的色彩组合，给予建筑设计更大的发挥空间，突显其档次与品位。简便灵活的拆装方式，使墙面设计搭配的更换轻而易举。



ATTACHMENT SYSTEM AND PROTECTION INSTRUCTIONS

附件系统及防护说明



THE ACCESARY SYSTEM
附件系统

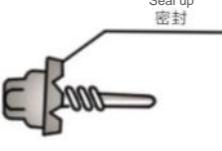
PANEL PROFILE
外观效果

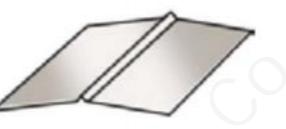
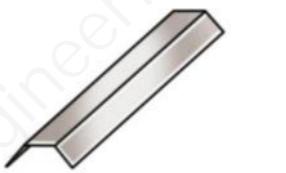
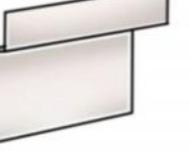
PROCESS FLOW
工艺流程

USE PROTECTION EXPLAIN
使用防护说明

THE ACCESARY SYSTEM

附件系统

NAME 名称	GRAPHICS 图形	MATERIAL 材料	SPECIFICATIONS 规格
Center Seam Trim 中缝饰条		Color Steel 彩钢	
			80X30
Seif-Tapping Screw 自攻钉			
Waterproof Rivets 防水铆钉			
Stiching Screw 缝合钉			
Roof ridge cover-I 屋脊盖板 -I		Color Coated Board 彩涂板	
Roof ridge cover-II 屋脊盖板 -II		Color Coated Board 彩涂板	

NAME 名称	GRAPHICS 图形	MATERIAL 材料	SPECIFICATIONS 规格
Internal roof backbone flashing 内屋脊板		Color Coated Board 彩涂板	
Add-On Gutter Brace 外挂天沟拉条		Color Coated Board 彩涂板	
External Corner Flashing-I 阳角收边 -I		Color Coated Board 彩涂板	
External Corner Flashing-II 阳角收边 -II		Color Coated Board 彩涂板	
Cornice Flashing 檐口收边		Color Coated Board 彩涂板	
Bracket 托架		Color Coated Board 彩涂板	

PANEL PROFILE**外观效果**

Note : In the process of printing, the colors mentioned above may have a little difference from the real colors, the actual product shall prevail.
注 : 因印刷关系,以上颜色和实际颜色略有差异,请以实物为准。

PANEL APPEARANCE**板型效果**

Flat effect
纯平效果

Relief effect
浮雕效果

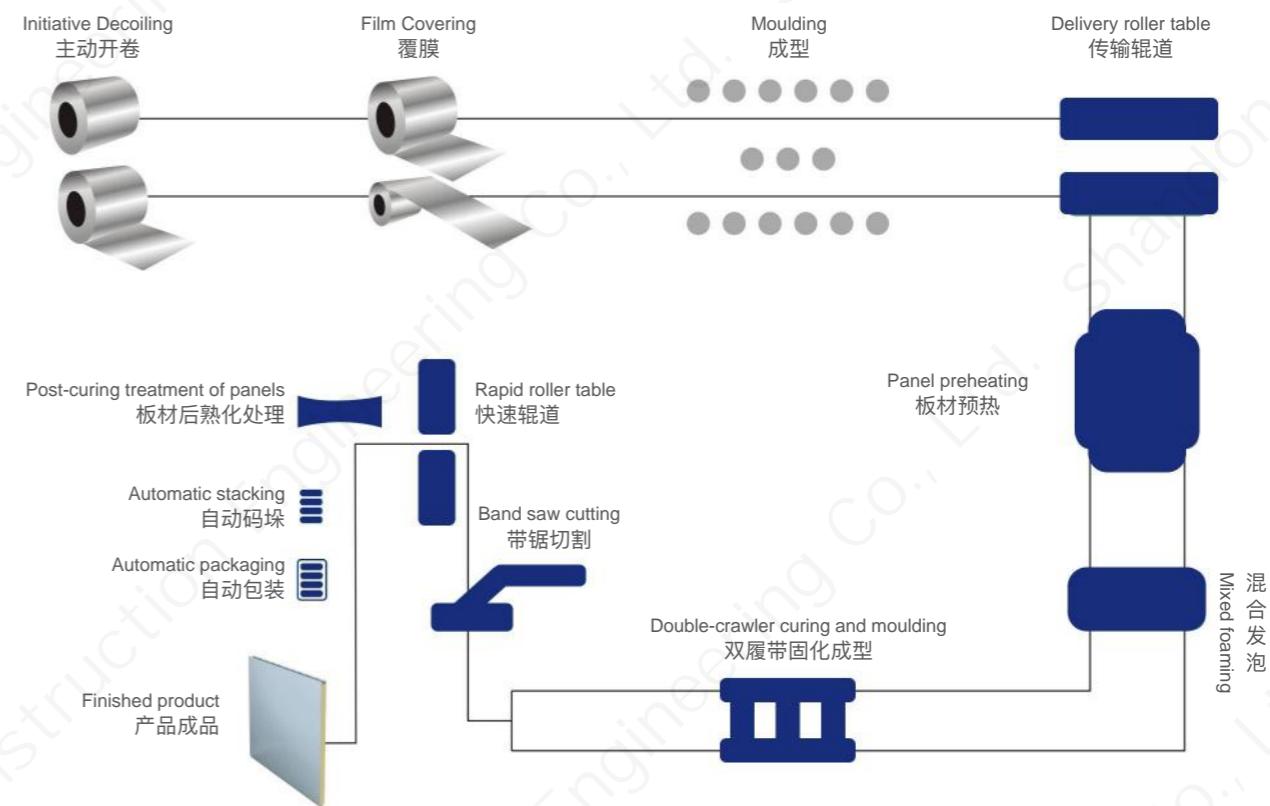
Wave Effect
水波纹效果

Ribbing effect
压筋效果

PANEL JOINT'S TYPE**板面搭接效果**

Joint with gap for horizontal application
横向有装饰缝效果

Joint without gap for horizontal application
横向无装饰缝效果

PROCESS FLOW**工艺流程****INDUSTRY BREAKTHROUGH****行业突破**

· China's first fully automatic integrated production technology for soft and hard surface composite plates
The production line can continuously produce soft and hard surface layers, and can produce PUR, PIR, rock wool, glass wool as the core materials of energy-saving panel production industry at the forefront in China. Break through the separation of the production line of sandwich panel with metal surface and a variety of flame retardant materials and thermal insulation materials
· China's first six-component high pressure continuous foaming online blending production system

- 中国首创软硬质面层复合板材全自动一体化生产技术
生产线可连续生产软、硬质面层, 可生产 PUR、PIR、岩棉、玻璃棉为芯材的节能板材板生产行业的国内最前列。突破金属面夹芯板与多种阻燃材料及保温材料夹芯板生产线分立的
- 中国首创六组份高压连续发泡在线配料混合生产系



USE PROTECTION EXPLAIN 使用防护说明



One-stop service of energy-saving insulation system 节能保温系统一站式服务

Use protection explain

INSTRUCTIONS FOR USE AND PROTECTION 使用、防护说明



ABOUT OUTDOOR STORAGE 关于室外存放

- Outdoor storage should not exceed 2 months, otherwise the quality and appearance of the composite board will be affected.
- The stacking of plate stacks should have a slope to facilitate the drainage of water. The plastic film at both ends of the plate stack should be removed to make it ventilated, and the entire plate stack should be covered with waterproof cloth.
- The stacking site of plate stacks should be flat, free of water, clean and dry. ISOPANEL rock wool composite board is especially water-proof.
- At most 2 packages can be stacked on site, and it cannot exceed 30 days to prevent damage to the board.

- 室外存储不宜超过 2 个月，否则会影响复合板的质量和外观。
- 板垛的堆放要有坡度，便于排放积水，板垛两端的塑料膜应该去掉使其通风，并另外对整个板垛盖上防水布。
- 板垛堆放的现场应该平整、无积水、干净、干燥。ISOPANEL 岩棉复合板尤其不能进水。
- 现场码垛时最多 2 包，且不能超过 30 天，以防板损坏。



ABOUT THE INSTALLATION SEQUENCE 关于安装顺序

- Installation compliance by P1-P12/C1-C3
- 安装顺序由 P1-P12/C1-C3
- For more information, please contact us
- 需要更多信息，请与我们联系

PRODUCT PROTECTION MEASURES

产品保护措施

LOAD THE CAR

一、装车

- Before leaving the factory, the products are carefully packed with film according to the customer's requirements to avoid damage in transit.
- Transport vehicles must be in good condition, and the bottom of the carriage should be flat and clean.
- The bottom board is facing downwards, and the top board is facing upwards, so that it should be extruded compactly and compactly to prevent the products from being damaged by extrusion deformation and abrasion during transportation.
- The binding rope or binding belt can't directly contact with the board at the corner, and the binding belt and the corner of the product must be padded with plywood for edge protection. Pay attention to the binding strength to prevent the corner deformation of the product.
- After the product is loaded, the driver should check to ensure that both sides of the carriage are balanced, and no obvious skew phenomenon is allowed.
- Effective measures should be taken to prevent rain and snow when loading in rainy and snowy days.



TRANSPORT

二、运输

- During transportation, you should ensure that you can drive on a solid and flat road as much as possible: drive smoothly, and don't start, brake or turn sharply; In case of slope, downhill or sharp bend during transportation, you should slow down.
- During long-distance transportation, check the condition of the goods from time to time, and take timely measures to correct any abnormality to avoid accidents.
- The board should be prevented from being pressed or causing any mechanical damage, and kept away from open fire.
- 在运输过程中, 应尽可能确保在坚实平坦的道路上行驶: 平稳行驶, 不要起步、刹车或急转弯; 如果在运输过程中遇到斜坡、下坡或急弯, 应减速。
- 在长途运输过程中, 应随时检查货物的状况, 发现异常应及时采取措施纠正, 避免发生意外。
- 应防止板材被挤压或造成任何机械损坏, 并远离明火。

UNLOADING AND HANDLING

三、卸车、搬运

- When the product arrives, check the quality, length, transportation damage, etc. If there is any damage, please mark it on the receipt and ask the driver to sign it, and be responsible for providing the damage explanation.
- Unloading should be done on a solid, flat ground, and special machinery should be used for unloading. The surface of tools in direct contact with the plate should be covered with a soft cushion to avoid damage to the plate.
- Manual unloading and handling:
 - 1) Wear protective gloves to avoid the surface abrasion of plates and ensure safety.
 - 2) Lift gently, lift all the bottoms with both hands, and do not lift the top panel alone to avoid tearing the plates; Do not drag, so as to avoid grinding and scratching the board surface: avoid bending of the board, otherwise it will cause the internal filling material of the board to break and the surface of the board to deform.

PILE UP

四、堆放

- The product shall be stored in a place far away from open flames and shall not be in contact with chemicals: it shall be stored in a dark and ventilated place to avoid sun exposure, and appropriate protective measures shall be taken.
- The product should be stored on a solid and flat ground, and the bottom should be paved with soft pads, and the spacing between the pads should not be greater than 1.5m.: Remember not to use wooden pads.
- Bulk stacking shall not be higher than 1.5m to prevent sun exposure and rain.
- Clear marks should be set around the crib to avoid collision and damage. Valuables and hard objects should not be placed on the crib to avoid scratching the board surface. No trampling.
- 产品存放地应远离明火且不得与化学药品接触: 宜存放在避光通风处, 避免阳光暴晒, 并采取适当的保护措施。
- 产品应在坚实、平整的地面上存放, 底部应用软质垫块铺垫, 垫块间距不应大于 1.5 米; 切记不可采用木质垫块。
- 散装堆放不得高于 1.5 米 防止暴晒和雨淋。
- 板垛周围应设置明显标识, 以免撞伤损坏。板垛上不应放贵重物、硬物, 以防划伤板面。严禁踩踏。



CLEANING AND MAINTENANCE

五、清洁与维修

- Proper installation and maintenance is very important to maintain the normal service life and paint surface of the board. All oil stains, dust, fingerprints or other stains must be removed before installation to ensure the service life and beauty of the board.
- Do not use solvents with strong solubility and cleaning tools that are easy to scratch the board surface when cleaning the board surface.
- 适当的安装和维修对保持板正常的使用周期和漆面是十分重要的, 所有的油渍、灰尘、指纹或其他的污迹在安装前必须去除以保证板的使用周期和板的美观。
- 清洁板面勿用溶解性强的溶剂和易划伤板面的清洗工具。

PROJECTS PROFILE

工程案例篇



ENGINEERING CASE
工程案例

■ CASE DISPLAY OF SOME FOREIGN SANDWICH PANELS
■ 国外部分夹芯板案例展示

■ INDUSTRIAL PARK PROJECT
■ 工业园区项目



■ SCIENCE AND TECHNOLOGY OFFICE BUILDING PROJECT
■ 科技办公楼项目

APARTMENT BUILDING PROJECT ENGINE FACTORY PROJECT
■ 公寓楼项目





■ OFFICE BUILDING PROJECT
■ 办公楼项目



■ FAMILY VILLA PROJECT
■ 家用别墅项目



CUSTOMER ORDERING INSTRUCTIONS

客户订货须知

THANK YOU FOR PUTTING FORWARD THE ORDER DEMAND TO SHANDONG SHANGHE ECONOMIC AND TRADE CO., LTD., AND KINDLY ASK YOU TO PROVIDE THE FOLLOWING DETAILS:
感谢您向山东尚禾经贸有限公司提出订货需求, 恳请您提供以下详细内容:

- 1 Building function (we will recommend the proper plate type and the best technical solution for you according to it)
建筑功能 (我们将根据您的建筑功能为您推荐合适的板型及最佳技术解决方案)
- 2 Fire resistance requirement for the project
工程防火性能需求
- 3 Plate specification (T x W x L,rib height)
板材规格 (厚 X 宽 X 长及波峰高度)
- 4 Types of core material for your choice:
rock wool,glasswool,PUR or PIR
芯材可选: 新型岩棉、新型玻璃丝棉、聚氨酯
- 5 Metal skin(painted steel sheet,
aluminum sheet for your choice)
面材 (彩涂钢板、铝板供选择)
- 6 Painting type: PE,SMP,HDP,PVDF
涂层选择: 聚酯型、硅改聚酯型、高耐厚聚酯型、
氟碳型
- 7 Base plate thickness of steel substrate:0.4-0.8mm
基板厚度 :0.4-0.8mm
- 8 Manner of packing
包装方式
- 9 Lead time
交货周期

Density requirement:PLS contact Shanghe sales department for more information
密度要求: 向尚禾公司销售部详洽

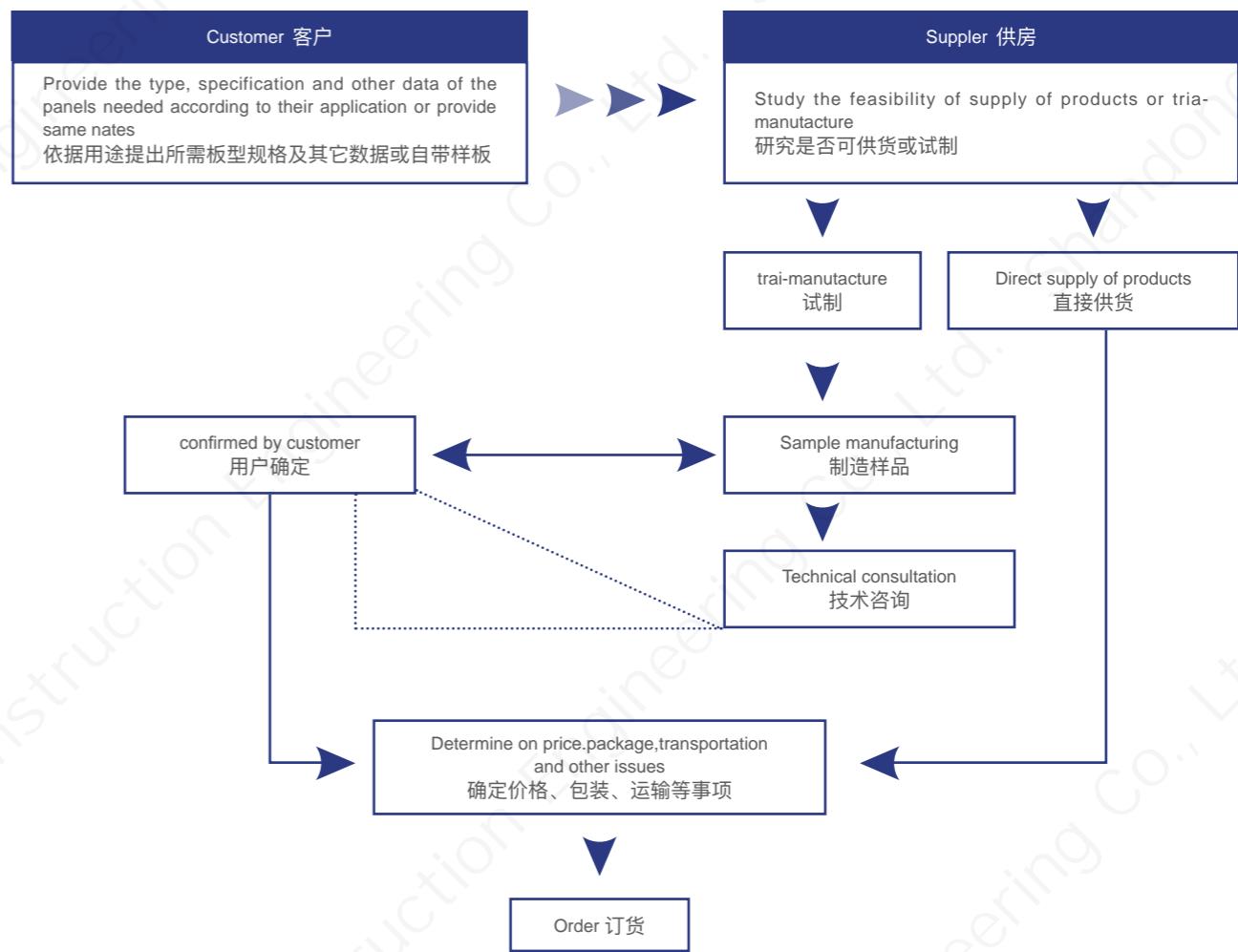
Panel color:for special colors, show us the color sheet sample for confirmation
面板颜色 : 若需特殊颜色需寄样板并协商

Profile: Ripple effect, extreme flat effect,relief effect and square wave effect
表面形状: 水波纹、纯平、浮雕、方波等

Base plate treatment:hot dip galvanized,AL-ZN coated
基板处理 : 热镀锌、镀铝锌

ORDERING PROCESS

订货流程





SCAN FOR MORE DETAILS

扫描获取更多



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