



LVFA HENGCHANG



LVFA HENGCHANG ENVIRONMENTAL PROTECTION TECHNOLOGY CO., LTD

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**SHANDONG LVFA HENGCHANG
ENVIRONMENTAL PROTECTION TECHNOLOGY CO., LTD**

COMPANY PROFILE

Shandong Jvfa Hengchang Environmental Protection Technology Co., Ltd. is located in Weifang Binhai Economic and Technological Development Zone. It covers an area of 146130 m^2 , the building area of plant is 34017 m^2 , and the building area of office and living area is 5659 34 m^2 . Six light wallboard production lines, six concrete PC production lines, a construction waste recycling production line and other auxiliary production equipment have been purchased. It has formed an annual production capacity of 260000 cubic meters of concrete PC boards, 750000 cubic meters of light wall panels, and 1million cubic meters of construction waste. The company's main business covers prefabricated wall boards, PC components and other new green environmental protection composite building materials. Adopt internationally advanced automation equipment. Continue to promote the integrated application of building information model (BIM) technology in the whole process of design, construction, operation and maintenance. Focusing on the technological research and development capabilities of new materials and products, we are committed to building a new green and environmentally friendly prefabricated building production base. Contribute to carbon peak and carbon neutralization.



DEVELOPMENT PROSPECTS



With the implementation of national energy conservation and environmental protection policies, the advantages of new prefabricated buildings are increasingly prominent. The innovation of wall materials is the important measure to protect cultivated land, save energy, improve the environment and implement the strategy of sustainable development. At the same time, it is also of great significance to promote the structural adjustment and technological progress of wall materials, improve the quality of construction projects and improve building functions.

The guiding opinions of the general office of the State Council on vigorously developing prefabricated buildings (GBF [2016] No. 71) and the opinions of the general office of the State Council on promoting the sustainable and healthy development of the construction industry (GBF [2017] No. 19) respectively proposed: develop prefabricated buildings such as prefabricated concrete structures, steel structures and modern wood structures according to local conditions, and vigorously promote intelligent and prefabricated buildings. Strive to use about 10 years to make prefabricated buildings account for more than 30% of the new building area.



Simple assembly



Energy conservation and environmental protection



Shorten the construction period



Cost savings



LIGHT WALLBOARD

Introduction to ceramsite lightweight wallboard

The ceramsite light wallboard produced by lvfa Hengchang environmental protection technology is mainly made of light and high-strength ceramsite, cement and fly ash, and is fully automatic through efficient foaming, ceramsite reinforcement, autoclave curing and mechanical cutting and other processes. With the characteristics of light weight, high strength, heat insulation, heat preservation, fire prevention, sound insulation and environmental protection, it is widely applicable to the construction of workshops, greenhouses and cold storage houses, office building partition, hospital partition, residential building partition, self built houses, etc.

Characteristics of ceramsite lightweight wallboard:

1. Light and thin, light weight, increase the building area;
2. It has the characteristics of high strength, high seismic performance, durability, resistance to certain impact force and small deformation. It is suitable for high-rise steel structure and composite structure wall;
3. Good fire prevention, waterproof, thermal insulation and sound insulation, excellent frost resistance, and good building performance;
4. Simple construction, fast speed, short cycle and low labor intensity;
5. The amount of reinforcement, cement and formwork is less, which reduces investment and saves construction cost;
6. The surface of the material is flat, the decorative effect is good, safe and beautiful;
7. Adopt the recycling of construction waste, which is green, healthy, low-carbon and environment-friendly.

Wallboard installation:

Wall panel packaging - cleaning foundation - wall setting out - main body setting out - setting clips - wall joint grout - installing plate head - checking horizontal perpendicularity - installing secondary plates in sequence - installing connectors - wall panel batch joints





SOUNDPROOFNESS

Wall panels with a sound isolation volume of 50 ~ 53db which can be produced through special design according to the needs of customers.

LIGHT WEIGHT

The unit weight of light wallboard is half of that of traditional brick wall masonry, and the compressive strength is $\geq 5\text{MPa}$.

EARTHQUAKE RESISTANCE

The allowable interlayer displacement angle is 1/150, which reaches 1/120 when using special contacts, and the plate will not fall off when the interlayer displacement angle is 1/20 in all contacts.

FIRE RESISTANCE

90mm wall panel fire protection ≥ 2.0 hours; 100mm wall panel fire protection ≥ 3.0 hours.

ENVIRONMENTAL PROTECTION

There is no radiation, and its hourly exposure is equivalent to the level of outdoor grass.

INSULATION

The minimum thermal conductivity (Grade B 04) is 0.114, and the insulation effect of 125mm thick material can reach the ordinary 370mm thick brick wall.



PERFORMANCE

CONVENIENCE

Dry operation is adopted, which is simple in installation and process. Putty is directly applied, which greatly shortens the construction period and improves efficiency and construction quality.

ECONOMY

Using ALC as wall material can effectively improve the use area of buildings, reduce the use of energy consumption, and meet the national building energy conservation standards.

CRACK RESISTANCE

ALC plate is reinforced by steel bars after rust prevention treatment and cured by high temperature, high pressure and steam. Among inorganic materials, the shrinkage ratio is the smallest. It is bonded and caulked with special polymers to effectively prevent cracking.

ORIGINALITY

ALC board can be made into artistic pattern board. After the material is installed, it can directly achieve the effects of brick pattern, grid pattern, horizontal pattern, imitation brick, imitation stone and so on.

BEARING CAPACITY

Inside the plate, there are double-layer and two-way reinforcing mesh, which provide external wall panels, partition panels, roof panels, floors, decorative panels, etc.

RAPIDITY

It eliminates the types of work in the traditional bricklaying process, and only the plate installer can complete all the work, avoiding the conflict and mutual restriction of types of work.





MAIN WALLBOARD PRODUCTS

COMMON DIMENSIONS LIGHTWEIGHT WALLBOARD(mm)	type	thickness (B)	length (L)	height or width (H)
	Inner wall panel	100	≤4200	600
		125	≤5000	
		150	≤6000	
		175	≤6000	
	Exterior wall panel	100	≤3600	600
		125	≤4200	
		150	≤5000	
		175	≤6000	
		200	≤6000	
	Roof slab	100	≤2600	600
		125	≤3500	
		150	≤4000	
		200	≤6000	





BUILDING COMPONENTS



PREFABRICATED STAIRS

Prefabricated stairs shall be prefabricated according to the dimensions of the design drawing. The surface is fair faced concrete, and the anti-skid strip is reserved on the step surface. It can be formed at one time without secondary treatment, and can be used after assembly. The factory directly realizes large-scale production, with stable quality and low cost. It has great advantages whether the main structure is constructed by assembly or not.

PRECAST COLUMN

Good appearance quality and small flatness error; The concrete strength is easy to control; No formwork and support, and the construction error is easy to control. After assembly, it can bear large vertical loads, which is conducive to reducing the vertical temporary support on site.



PRECAST INTERIOR WALL

Meet the load-bearing requirements, and use the grouting sleeve to ensure the integrity of the main body; Factory production and stable quality; Reduce plastering and wet work; The product comes with various pipeline embedments.



PREFABRICATED LOTUS ROOT BEAM

Good appearance quality and small flatness error; Reliable connection, easy quality control and concrete strength control; It is easy to install, free of formwork and support, reducing on-site wet operation, and easy to control construction errors; The factory has modular production and high production efficiency.



PRECAST SHEAR WALL SLAB

There are two forms of prefabricated shear wall exterior wall panels: triple plates and double plates. It is suitable for high-rise assembled integral shear wall structure residential buildings in non-seismic design and seismic design in areas with seismic fortification intensity of 6-8, and the thermal insulation and structure have the same life.

PRECAST COMPOSITE FLOOR SLAB

Template free technology saves revolving materials and costs; The product has its own pipeline function, and the positioning of the wire box is more accurate; The superimposed layer of cast-in-situ concrete fully ensures the integrity of the main body of the building.



PRECAST CANTILEVER SLAB

The common problems of high-altitude operation in traditional construction, difficult hollowing, cracking and dimensional deviation in formwork erection are solved; Good anti-leakage performance, the product has its own dripping eaves.

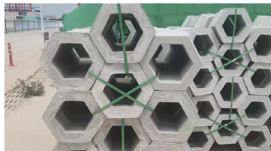


PRECAST WALLBOARD

Simple construction and low labor intensity; High strength and seismic performance; Good fire prevention, waterproof, thermal insulation and sound insulation effects. It is mainly used for plant, office building partition, self built houses, etc.



MUNICIPAL COMPONENTS



HIGH SPEED SLOPE PROTECTION

The construction period is short, economical and practical; It has high adaptability to the small-scale deformation of the lower base surface; Hexagonal hollow structure has high porosity and good water permeability, which can effectively reduce the base pressure; Grass can be planted in the pores to prevent water and soil loss and protect the environment.



PRECAST KERB

Raw materials are common and rich in resources; The processing cost and the technical content are low, and it is easy to form; The molding cycle is short, and it's suitable for mass production; The investment cost and the price of a single piece are low.



PREFABRICATED HIGHWAY ENCLOSURE

Low cost, reusable, green and environmental protection; The construction period is short, the production efficiency is high, and it is not affected by the climate; High safety, firm and reliable; Beautiful appearance, it can be customized according to requirements.



PRECAST PAVEMENT SLAB

Long service life; High stability and reliable quality; It can be customized according to the situation of various needs.



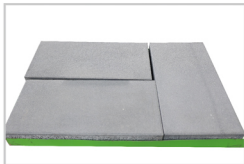
PREFABRICATED WATER TANK

Low cost, short production cycle, it's suitable for mass production; The ground damage area is small, and the installation and later maintenance are convenient and fast; High strength, high hardness and strong bearing capacity; Acid and alkali resistance, corrosion resistance.



PRECAST CONCRETE BRICK

After the dry and hard concrete is formed in a special mold by extrusion, vibration and other methods, the concrete block can be used for wall masonry, sidewalk pavement, etc.



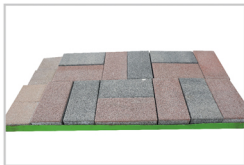
SAND BASED PERMEABLE BRICK

1. With special technical formula, it can effectively resist the surface aging caused by ultraviolet oxidation, as well as heat aging, freeze-thaw resistance, weathering resistance, and good durability.
2. Rich colors, diverse materials and flexible designs.
3. The unique water-based material technology is adopted, which has good water sealing and air permeability. The sand based permeable brick has a good protective function for the lower pavement, and is suitable for the conditions of all roads and lanes.



STONE LIKE PERMEABLE BRICK

1. High permeability: it can make rainwater quickly penetrate into the underground to conserve the earth, reduce the pressure of urban drainage and flood, and alleviate the urban heat island effect.
2. High strength compression resistance: it has constant compression resistance, flexural strength and bearing capacity, which can meet the traffic of a large number of people and vehicles.
3. High durability and easy maintenance: the texture is hard, durable and clean, meeting certain grading requirements, and the brick surface has good skid resistance, wear resistance and durability.



COLORFUL PERMEABLE BRICK

1. The magic color brick has certain air permeability, which can make the interior of the building not polluted and will not damage the environment.
2. Magic bricks have the advantages of high strength, good performance and convenient use.
3. The magic brick will not pollute the environment and will not affect the building structure and landscape. It can be used as an auxiliary material for the internal decoration of buildings.
4. Magic color brick has good impermeability and is also a kind of firewall material.

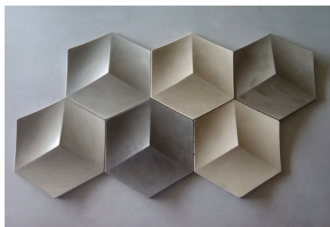


FULL BODY PERMEABLE BRICK

1. The material aggregate is natural stone glued with imported modified epoxy resin, which is processed and formed by special process, with high strength and good performance.
2. This product can be prefabricated and cast on site, with low construction cost, easy maintenance and more convenient use.
4. It has rich colors, beautiful appearance, flexible and diverse design, and can spell out various artistic graphics and color lines. It is suitable for garden landscape engineering and high-end villa communities.



ART COMPONENTS





MACHINE-MADE SAND

Lvfa Hengchang machine-made sand production line has the advantages of high automation, high crushing rate, energy saving, large output, less pollution and simple maintenance. The machine-made sand produced by the sand production line meets the national construction sand standard (rock particles with particle size less than 4.75mm, but excluding soft rock and weathered rock particles), uniform particle size, good particle shape and reasonable grading.



Machine made sand and mixed sand are mainly used for concrete with strength grade of C60 and below in construction projects such as construction, municipal administration and transportation. When meeting the corresponding technical requirements, it can also be used in port, water conservancy and other concrete projects; Plastic concrete should be prepared. Mixed sand should be prepared with plastic, high fluidity and pumped construction concrete. For concrete of strength grade C (16) O, the fineness modulus of mixed sand shall not be less than 2.3, of which the fineness modulus of ultra-fine sand shall not be less than 1.1; For concrete of strength grade c45-c55, the fineness modulus of mixed sand shall not be less than 1.8, of which the fineness modulus of ultra-fine sand shall not be less than 0.9; When mixed sand is used to prepare concrete with strength grade above C60, it shall pass the test and be proved to meet the performance requirements before use.

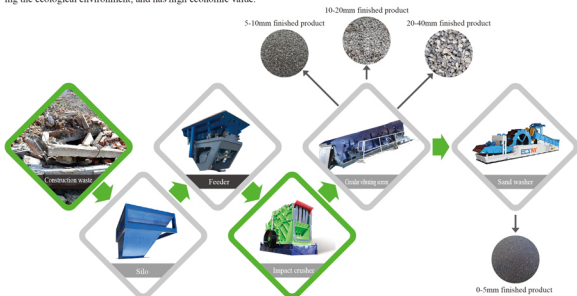




REGENERATION OF CONSTRUCTION WASTE

The construction waste resource utilization project is a comprehensive resource utilization project, which is in line with the national energy conservation and emission reduction policy. At the same time, it provides clean and environment-friendly building materials for the city and promotes the rapid development of the city. The construction and operation of the project benefit the country and the people.

According to the catalogue of value added tax preferences for products and services of comprehensive utilization of resources and the regulations for the implementation of the enterprise income tax law of the people's Republic of China, the project meets the conditions of three exemptions and three halving of income tax, and some products can enjoy 50% or 70% of value-added tax. The project is also an environmental protection and recycling project supported by the state. The products of the project are renewable energy-saving building materials, which are in line with the ecological economic system characterized by cleaner production, resource recycling and efficient waste recycling. In the later stage, we can strive for more policies locally. Construction waste is mostly solid waste, mainly composed of muck, scattered mortar and concrete, brick and concrete fragments produced by chiseling, reinforced concrete pile heads cut by piling, metal, bamboo wood, waste from decoration, various packaging materials and other wastes. Among them, coarse and fine aggregates are produced from waste building concrete and waste masonry, which can be used to produce concrete and mortar with corresponding strength grades or to prepare building materials products such as blocks and floor tiles; It has the advantages of reducing and recycling construction waste, saving natural resources and protecting the ecological environment, and has high economic value.





Scrap steel, scrap steel and other scrap metal materials can be directly reused or recycled for processing.

01

Muck can be used for road construction, pile foundation filler, foundation, etc.

03

The asphalt mixture of waste pavement can be directly used for recycled asphalt concrete in an appropriate proportion.

05

Waste road concrete can be processed into recycled aggregate for preparing recycled concrete.

07

Waste glass, waste plastics, waste ceramics and other construction waste shall be used differently according to the situation.

09

02

Using waste bricks and tiles to produce aggregates can be used to produce recycled bricks, blocks, wallboards, floor tiles and other building materials products.

04

For the waste wood construction waste, the wood that has not been significantly damaged can be directly reused for building reconstruction, and the seriously damaged wood components can be used as raw materials for wood recycled boards or papermaking.

06

The coarse and fine aggregates produced from waste building concrete and waste bricks and stones can be used to produce concrete and mortar with corresponding strength grades or to prepare building materials products such as crisp blocks, wall panels, floor tiles and so on.

08

Waste bricks and tiles are burnt clay materials. When crushed and ground into powder materials, they have pozzolanic activity and can be used as concrete admixtures to replace fly ash, slag powder, stone powder, etc.



PRODUCTION CAPACITY



