OURGREEN®

Technology creates Green

OURGREEN®

Build our green world

XPS Foam Board & XPS Foam Board Production Line

Nanjing Ourgreen Energy Saving Technology Co., Ltd.

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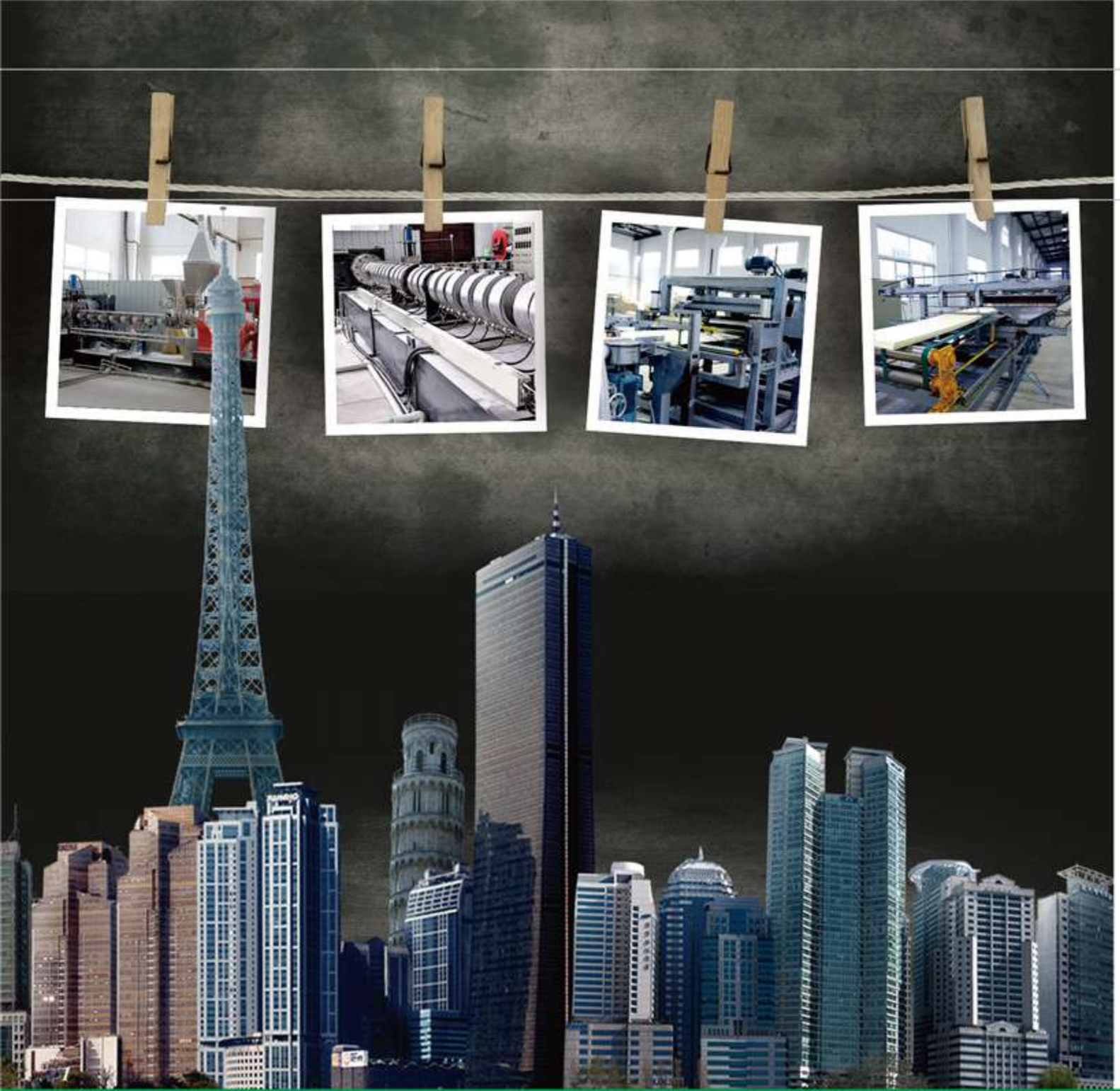
ISO 9001 CE



Our Motto:

Provide Excellent Products and Services

Nanjing ourgreen Energy Saving Technology Co., Ltd. is located in Jiangning Economic Development Zone, Nanjing City, belonging to the economically developed area known as the Yangtze River Delta. We have been devoted to the environmental protection, and made efforts to achieve green building and beautiful China. Our main business is to research, develop, produce and sell Extruded Polystyrene Foam and XPS Extrusion Line home and abroad.

Nowadays, Energy saving and Environmental Green Building is the leading trend in construction field. Within Building Envelope, heat loss from Wall takes up major proportion. New measures have been applied to insulate buildings, where Wall energy saving technology is playing an important role, and hence it has been the prevailing way to develop Wall & Roof Insulation System.

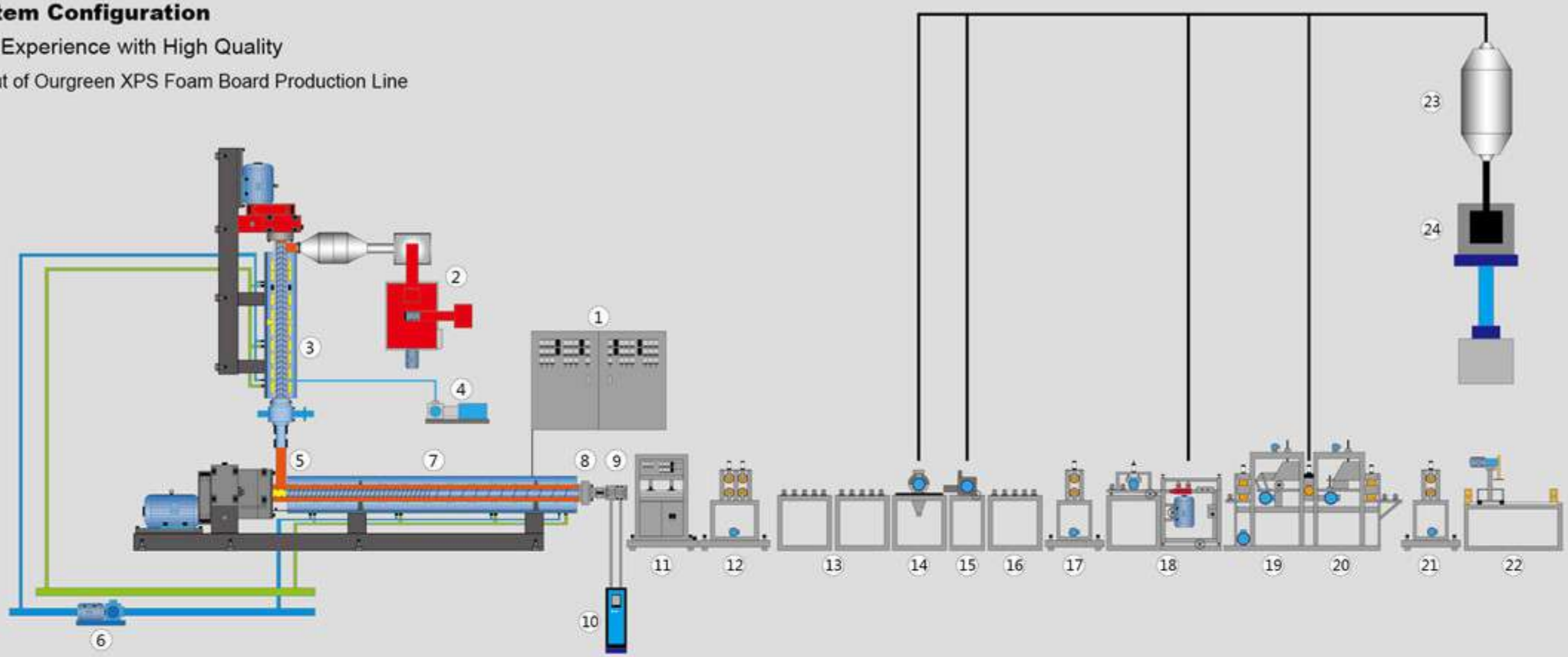
Nanjing Ourgreen Energy Saving Technology Co.,Ltd adopts CO2 technology, using GPPS (General Purpose Polystyrene), other Blowing Agent like HCFC/Butane/DME, Nucleating Agent and high performance Fire Retardants as the raw materials to mass produce the nearly 100% closed-cell Extruded Polystyrene Foam. Ourgreen XPS Foam bears many advantages as Low Thermal Conductivity, High Compressive Strength, low Water Absorption, Light-weight and easy-cutting.

Apart from Foam production, we are also manufacturing Polystyrene Extrusion Line,and we are continuously putting real production experiences into machine building technology. With several Patents at hand, we are able to offer you one-stop XPS plant building services.

System Configuration

New Experience with High Quality

Layout of Ourgreen XPS Foam Board Production Line



1 Control Cabinet	9 Slot Die	17 Second Haul-off
2 Mixing & Feeding System	10 Temperature Controller	18 Edge Trimming Machine
3 First Extruder	11 Calibrator	19 Surface Planing Machine
4 Metering Pump System	12 First Haul-off	20 Surface Grooving Machine
5 Hydraulic Screen Exchanger	13 Cooling Rack 1	21 Third Haul-off
6 Cooling Water System	14 Width Cutting System	22 Length Cutting System
7 Second Extruder	15 Edge Crusher	23 Dust Collecting Device
8 Heat-exchanger	16 Cooling Rack 2	24 Recycling System

Parameters	Unit	Data			
		135/150	150/200	65T/150	75T/200
First Extruder	MM	SS135	SS150	TS65	TS75
Second Extruder	MM	SS150	SS200	SS150	SS200
Capacity	Kg/h	250-300	350-420	300-400	400-600
	M^3/24h	200-250	280-330	250-320	300-450
Installed Capacity	KVA	150	250	200	250
Voltage	380V 3 Phase				
XPS Thickness	MM	20-100			
XPS Width	MM	600/900/1200			
Required Space	M	40x12x4	46x15x4	42x10x4	46x12x4
Machine Weight	Ton	17	21	18	22
Note	SS: Single-screw Extruder TS: Twin-screw Extruder				

Mixing & Feeding System

Humanized Design: Hopper is put just above ground to avoid danger and increase effciency;

PLC Controlled Automatic Feeding System.

Twin Screw Extruder

Bigger L/D Ratio ensures Materials are mixed thoroughly.

Twin Screw Extruder better mixes raw materials, so that final product has excellent uniform structure;

Bigger Capacity than Single Screw Extruder to decrease unit production cost of XPS Board;

Screw Elements are easy to maintain.

Hydraulic Screen Exchanger

The Screen filters impurities in raw materials.

Non-stop Screen Changing;

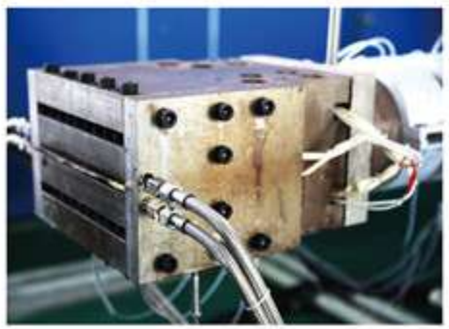
System Pressure is Stable during changing process.

Second Extruder

Big L/D Ratio ensures materials are cooled thoroughly;

Independent Water Jacket Cooling System;

Equipped with Static Mixer



Slot Die

Special T-shape inner structure;

Easily adjustable by operating bolts;

One Slot Die for making 20-100mm;

Equipped with Slot Die Temperature Controller.

Calibrator

Integrated Control Panels of
First Extruder,
Second Extruder,
Feeding System,
Haul-off System
CO2 Conveying Pump
CO2 Pistion Pump
Freon/Butane Pump
Water Pump
Equipped with 4 Anti-static Bronze Bars to Eliminate Statics during XPS production.

First Haul-off System

Four Durable Nitrile Rubber Rollers
Upper Roller Height Adjustable.
Applicable Width: 1200mm.
Synchronized Control with Second Haul-off System

Cooling Rack System

4 Sets of Cooling Racks
Total Length 21m.
Air Cooling
Applicable Width:1200mm

Width Cutting System

14" Saw Cutting;
Durable Alloy Saw Tips;
Applicable Width 1200mm;
Equipped Ruler to adjust cutting width.

Surface Planing & Grooving Machine

Surface Planing Machine includes 2 rollers with hundres of small Alloy Blades;
Equipped with Dust Collecting Device;
Surface Grooving Machine includes 2 rollers with a lot of Saws;
Surface Planing & Surface Grooving are required when making Sandwich Panel.

Second Haul-off System

Two Durable Nitrile Rubber Rollers
Upper Roller Height Adjustable.
Applicable Width: 1200mm.
Synchronized Control with First Haul-off System

Length Cutting System

Patent No.: ZL 2013 2 0274802.2
Servo Motor Control
Length Precision: ±2mm
Applicable width: 600- 1200mm
Cutting by Reciprocating Triangle Blade

Granulating System

Equipped with Crusher to break XPS blocks;
Cooling Channel to cool Polystyrene Strings;
Durable Alloy Blade Granulator;
Extruder Diameter of 100mm ensures High Capacity of 2Ton/24h.

Automatic Packing System

Packing Specification:
a.Single Board Dimension:
L1200/1250/2400/2500*W600*T20-100mm
b.Max. Finished Packing Dimension:
L1200/1250/2400/2500*W600*T300-550mm
Packing Speed: 1-3 Bags/min
Packing Material: Heat Shrinkable PE Film
Packing Type: Six Sides Fully Enclosed Packaging
Electricity: 50Hz/380V/Three Phase
Power: 50KW

1. Patents of our XPS Foam Board Production Line

No.	Patent No.	Patent Name
1	ZL 2013 2 0642085.4	A Surface Planing Machine for XPS Production Line
2	ZL 2013 2 0642118.5	A Set of XPS Production Line
3	ZL 2013 2 0645845.7	A Width Cutting System for XPS Production Line
4	ZL 2013 2 0647094.2	A Static Mixer for XPS Production Line
5	ZL 2013 2 0273957.4	A Feeding System for XPS Production Line
6	ZL 2013 2 0274802.2	A set of Length Cutting System for XPS Production Line
7	ZL 2013 2 0275685.1	A set of Extruder for making XPS Foam

2. Blowing Agents Substitution

What do the whole world use as Blowing Agents?

European Union: HCFCs wass forbidden in 2002; HFCs were forbidden in 2013; they are now using CO2+Other Blowing Agents.

Japan: HCFCs were forbidden in 2004; they are now using Butane.

North America: by 2030, HCFCs will be forbidden, and they are now using HFCS.

China: Production and selling of HCFCs are frozen and by year 2030 HCFCs will be forbidden.

What is your Blowing Agents?

We recommend CO2+Other Blowing Agents like Butane/DME/HFC/Ethanol.

3. After-sale Services

We offer Spare Parts to your current XPS Line;

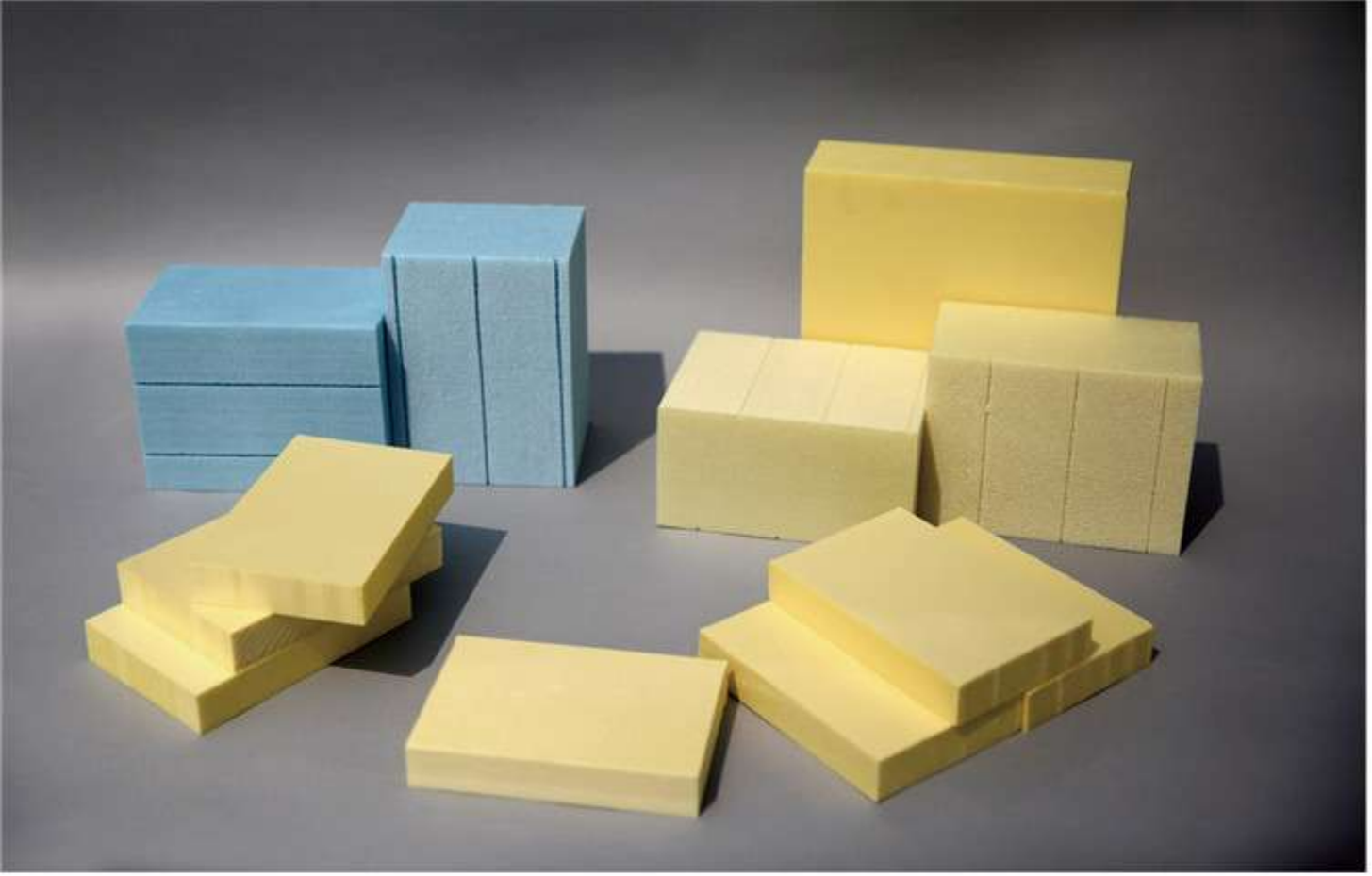
We offer new Screw for your current XPS Line;

We offer brand-new Complete XPS Foam Board Production Line;

We offer CO2 technology upgrading;

Trouble-shooting at by email 24 hours;

Engineers are available for overseas Maintenance if necessary.



Ourgreen Diversified XPS Board

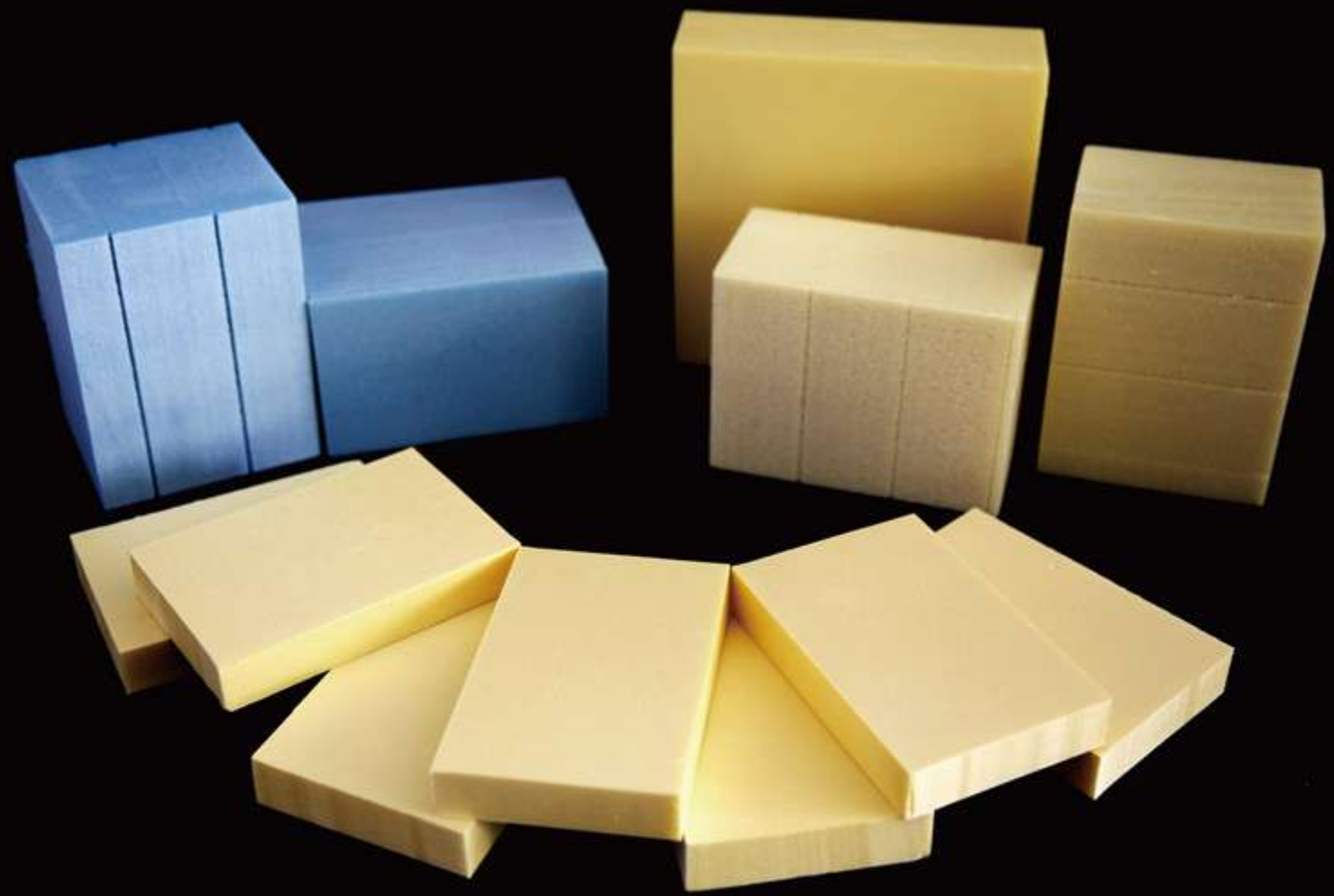
Nanjing Ourgreen Energy Saving Technology Co.,Ltd has been contributed to Environmental Protection, by adopting CO2 technology, using GPPS (General Purpose Polystyrene), other Blowing Agent like HCFC/Butane/DME/HFC, Nucleating Agent and high performance Fire Retardants as the raw materials to mass produce the almost 100% closed-cell Extruded Polystyrene Foam.

Ourgreen XPS Foam bears many advantages as Low Thermal Conductivity, High Compressive Strength, Low Water Absorption, Light-weight and easy cutting & installing.

- Long-term Thermal Resistance
- Extra Long Durability
- Excellent Water Resistance
- High Compression Strength
- Remarkable Fire Resistance
- Outstanding Sound Absorption
- Reputed Green Product

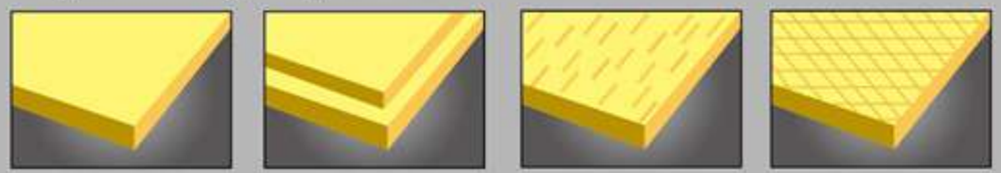
Technical Characteristics of Ourgreen XPS Board

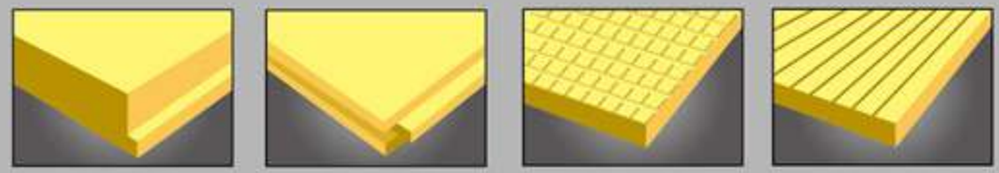
Item	Unit	Properties of XPS Foam Board										
		Skin-on									Skin-off	
		X150	X200	X250	X300	X350	X400	X450	X500	X700	W200	W300
Compressive Strength	kPa	≥150	≥200	≥250	≥300	≥350	≥400	≥450	≥500	≥700	≥200	≥300
Water Absorption dipped in water for 96h	% (by volume)	≤1.5		≤1.0							≤2.0	≤1.5
Moisture Permeability 23±1℃*RH 50%±5%	Ng/(m.s.Pa)	≤3.5		≤3.0				≤2.0			≤3.5	≤3.0
Thermal Conductivity 10℃ 25℃	W/(m·K)	≤0.028 ≤0.030						≤0.027 ≤0.029			≤0.027 ≤0.029	≤0.030 ≤0.032
Dimensional Stability 70±2℃, 48h	%	≤2.0		≤1.5				≤1.0			≤2.0	≤1.5



Items	Unit	Value
Thickness	mm	6-20; 20-100
Width	mm	600/900/1,200
Length	mm	1200/2400/3000+
		1200x600x25
Common	mm	2400x600x50
Panel Size		2400x1200x50
		2440x1220x100
Color	---	Yellow/Blue
Skin Condition	---	Skin-on/Planed/Grooved
Density	Kg/m3	30-55
Packing	---	Water-proof Plastic Bag
Compression Strength	150-700 Kpa	Tested at 10% Deflection
Fire Resistance	B1/B2/Non FR	

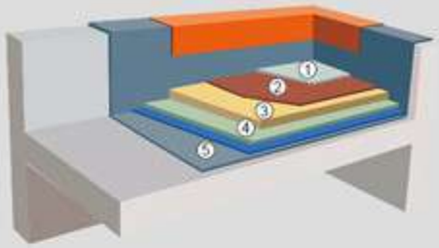
Ourgreen XPS Edge Shape and Surface Pattern





1.XPS Board for Roof Insulation
2.XPS Board for Walking-on Roof Insulation
3.XPS Board for Wall Insulation
4.High Compressive Strength XPS Board for Heavy Load Floor
5.XPS Board for Floor Insulation

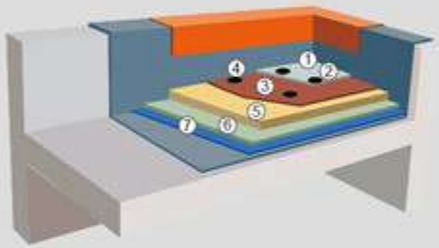


Traditional Roof Insulation System

Remarks:

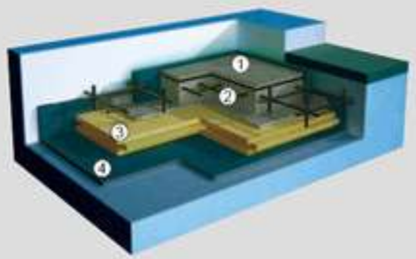
1. Pebble or Concrete Brick
2. Single Layer EFDM Waterproof System
3. Ourgreen XPS Foam Board for Roof
4. Moisture Barrier of PE film or Slef-adheisve Modified Bitumen Roll
5. Roof



Steel Structure Roof Insulation System

Remarks:

1. Single Layer of EFDM/TPO /PVC Waterproof System
2. Mechanical Fixings for Waterproof Roll
3. Non-woven Barrier
4. Special Mechanial Fixings for XPS Board
5. Ourgreen XPS Board for Steel Frame
6. PE film or Slef-adheisve Modified Bitumen Roll
7. Metal Roof



Inverted Roof Insulation System

1. Concrete Tile
2. Fixing Base for Concrete Tile
3. Ourgreen XPS Board for Roof
4. Water-proof Layer

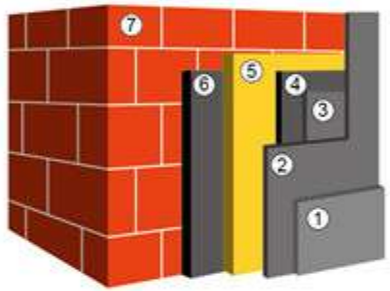
Slope Roof Insulation System

1. Ourgreen XPS Board
2. Moisture-proof Layer
3. Levelling Layer
4. Roof Base

Exterior Wall External Insualtion & Decoration System

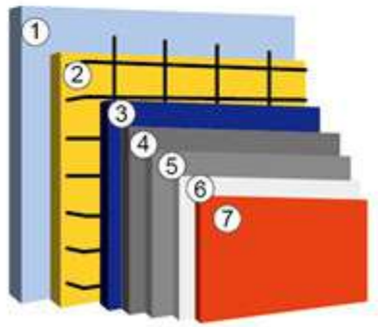
Remarks

1. Exterior Finish
2. Polymer Anti-crack Motar
3. Reinforcing Fiberglass Mesh
4. Special Fixings for for External Wall Insulation System
5. Ourgreen XPS Board
6. Polymer Adhesive Motar
7. Exterior Wall Base



External Wall Insulation System with Embedded Mesh

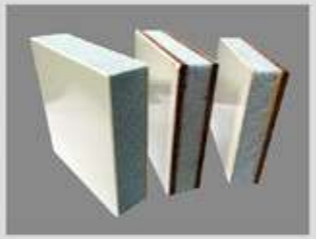
1. Wall Base
2. Ourgreen XPS Board with Steel Wire Mesh
3. Anti-crack Motar
4. Fiberglass Mesh
5. Surface Motar
6. Flexible Putty
7. Elastic Coating




Ourgreen XPS Board in Cold Store

Cold Store is an important apparatus for food Freezing, Storing and Transportation. It is highly concerned for its huge Electricity Consumption. The inside Building Envelope and Insulation Layer takes up 20%-35% of energy consumption, hence the choice of Insulation Material determines efficiency of such Cold Store.

With respect to current situation of Cold Store, Ourgreen developed Cold Store Insulation System Solution, helping customers to decrease Maintenance Cost and increase Return on Investment.

Ourgreen XPS Board in Cold Chain Logistic Truck

In the past, people tend to use Polyurethane to manufacture Cold Chain Logistic Truck. Nowadays, more and more customers use Ourgreen XPS board as substitution to Polyurethane in this regard, for the fact that XPS bears following reasons:

Long-term Thermal Resistance: almost 99% Closed Pores gain advantage over PU as 80%;

It is totally safe to transport goods.


Ourgreen XPS Board in Housing Industrialization

Housing Industrialization replaces traditional distributed and less efficient hand-made building construction by industrialized mass production of houses in modernized Delivering, Installing and Managing way.

XPS Board is applied for Insulation in Housing Industrialization for:

Long-term Thermal Resistance: almost 99% Closed Pores gain advantage over PU as 80%;

Excellent Water Resistance: The closed-cell structure makes XPS nearly Waterproof, hence it avoids water leakage, penetration, frost and condensation;


Ourgreen XPS Board in Decorative & Thermal Insulation Panel

Fire Resistant-Thermal Insulation-Decoration Panel is a new chemical construction material bearing functions of Decoration, Energy-Saving, Fire-resistance and Water-resistance. Such panels are widely applied in External Wall, Internal Room, Metro, Tunnel, Laboratory Desk, Hospital Partition and Furniture.


Ourgreen XPS Board in High-speed Railway Road Base, Airport, Parking Area

Frost-heave causes unlevel ground on roads of High-speed Railway, Pavement and Airport, which was mainly invaded by Cold Weather, Moisture and Frost. Ourgreen XPS Board prevents penetration of Moisture, decrease damage of extreme weather on road base, minimize frost-heave, and prolong its life so as to ensure traffic safety.

Usually a High Compression Strength of 500Kpa, 700Kpa are applied in this special field.


Ourgreen XPS Board in Wind Blade

The XPS board as core foam in Wind Blade decreases its weight while maintaining its rigidity, to enlarge contact area with wind. XPS Board has been the prevailing material over PVC, SAN and PU foam in Wind Blade mass production, due to outstanding properties of: Light-weight, Long-term Durable Performances, High Impact Strength, better adhesion with Liquid Epoxy Resin and lower production cost. Usually a Compression Strength of 700Kpa is required in this field.

OURGREEN Test Report


OURGREEN Patents



OURGREEN Qualification & Honors

ISO 9001 Quality Management System ISO9001
Jiangsu Provincial Private Technology Enterprise
Jiangsu Provincial Small & Medium Technology Enterprise

Share with you our Professional Quality

1.Dongtai Biguiyuan Residence
2.Zhenjiang Relocation Residence
3.Thailand Cold Chain Logistic Truck
4.Jiangsu Provincial Institute of Metrology
5.Shanghai-Kunming High-speed Railway
6.Yangzhou Four Season Sunshine Residence
7.Nanjing Shangfang Relocation Residence
8.Second Phase of Nanjing Lukou Airport
9.Zhuji International Trade Mansion
10.Nanjing Spetember Forest Villa
11.Liyang Xialin Relocation Residence

Pursuit of Sustainability

Technology, Innovation, System Integration are our Managing Ideas and we bring them into Research, Developing and Production of each of our products. Efficiency, Reliability and Sustainability are our pursuits. We provide Solutions for energy saving of buildings, we offer reliable high quality products and by this we commit our promise to low carbon.

We cherish our limited resources, we cherish our unique earth community! Together we build our green world!

You may visit en.jsourgreen.com to witness our efforts and improvements!