



The Best Manufacturer of Pre-insulated Duct Panels and
Foam Insulation Materials in China



Company Instruction:

Green Foam Insulation Material Co., Ltd. (hereafter referred to as Greenfoam), located in the beautiful coastal city of Xiamen, Fujian, China. Greenfoam has been dedicated to providing most efficient and quality foam insulation materials to our customers all over the world for more than ten years, and focusing on the R&D, manufacturing and promotion of PUR / PIR / Phenolic Foam Pre-insulated HVAC Duct, Phenolic Foam Insulation Board, Phenolic Foam Block and Pipe Insulation.

Factory site:



Our products have been exported to more than forty countries such as USA, Australia, UK, Ireland, Spain, Korea, UAE, Iran, Thailand, Sri Lanka, Indonesia, Taiwan, Brazil, Colombia, Panama, Dominican, etc.

Clients from all over the world:



Mission

As a professional manufacturer of thermal insulation materials, Greenfoam always takes **"Save Energy, Safe System"** as the mission of our sustainable development. Product quality is our core-competitiveness.

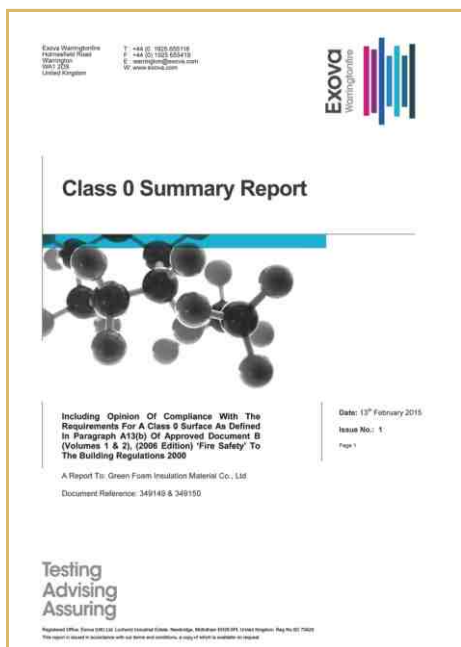
Our products are energy-saving and environment-friendly. Greenfoam has grown as the best supplier and manufacturer of Pre-insulated Duct and Phenolic Foam Insulation materials in China.

Capacity

We have large-scale production lines which have a daily output capacity of 12,000 square meters foam insulation panels and 3,000 meters insulation pipes. We are equipped with independent R&D Center, which is approved by Fujian Provincial Government. The R&D team consists of experienced experts and engineers which ensure that our products can match the international standard such as ASTM, BS, etc.

Fire Rating Certificate:

Our insulation materials has reached BS 476 Part 6 & Part 7 Class 0 by Exova Warringtonfire, and ASTM E-84 Class A by SGS, PVC flange joint has reached UL 94 V-0 by SGS.





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PUR / PIR Foam Pre-insulated HVAC Duct Panel

PUR / PIR Foam Pre-insulated HVAC Duct Panel consist of 20mm thickness PUR / PIR insulation foam faced with Aluminum or Galvanized Iron on both sides. According to different application or project requirement, the facing of the panel can be as below.

- 1) Both sides with 80mic thickness aluminum foil.
- 2) One side with 80mic thickness aluminum foil, the other side with 200mic Aluminum or Galvanized Iron sheet.



The facing materials can be embossed or smooth, also can be in different color, like silver, white and black. The aluminum foil is coated with a 2g/m² layer of corrosion-resistant epoxy varnish paint.

Besides of both side with embossed AL foil, we still can offer different kinds of facing material:



Black AL foil

200mic AL sheet

200mic GI sheet

Pre-painted GI sheet

Technical Data

Property	Unit	Specification
Standard Size	mm	3950*1200*20
Foam Density	kg/m ³	50-55
CFCs and HCFCs		Free
Aluminum Foil Thickness	micron	80
Aluminum Sheet Thickness	micron	200
Thermal Conductivity	W/m.K	0.02
Fire Rating		BS 476 Part 6&7 Class 0
Compressive Strength	Mpa	0.25
Bending Strength	Mpa	2
Water Absorption	%	0.1
Dimension Change	%	0.3
Maximum Wind Velocity	m/s	13-20
Maximum Running Temperature	°C	80



Phenolic Foam Pre-insulated HVAC Duct Panel



Phenolic Foam Pre-insulated HVAC Duct Panel consist of 20mm thickness phenolic insulation foam faced with Aluminum or Galvanized Iron on both sides. The facing material is the same as PUR / PIR panel.

Technical Data

Property	Unit	Specification
Standard Size	mm	3950*1200*20
Foam Density	kg/m ³	45 or 60
CFCs and HCFCs		Free
Aluminum Foil Thickness	micron	80
Aluminum Sheet Thickness	micron	200
Thermal Conductivity	W/m.K	0.02
Fire Rating		BS 476 Part 6 & 7 Class 0 ASTM E-84 Class A
Compressive Strength	Mpa	0.25
Bending Strength	Mpa	2
Water Absorption	%	0.25
Dimension Change	%	0.3
Maximum Wind Velocity	m/s	13-20
Maximum Running Temperature	°C	120



Phenolic panel is not as flexible as PUR / PIR panel and can not be bended by bending machine. Usually a 15 degree double cutter / elbow cutter is used for making elbow duct.

The Advantage of Pre-insulated Duct (Compared with traditional GI Duct):

Greenfoam Pre-insulated HVAC Duct is new generation duct, which is ideal for specifications where space or weight is restricted. Compared with traditional galvanized Iron(sheet metal) ductwork, Pre-insulated HVAC Duct have offers a high performance, lightweight and robust ductwork system that requires only a single fix installation process. This not only makes it a high speed operation for projects on which time is critical but also provides the advantage of a considerable saving in cost and space. It can make a saving of over 20% on operating cost over a 30 year life.

Performance comparison of Greenfoam Pre-insulated Duct and traditional GI duct



Description	Greenfoam Pre-insulated Duct	Traditional GI Duct
Weight	Light, 1/6~1/10	More than Six Times Heavier
Space	Less Space Required	More Space Required
Insulation	Self Insulated	With Glass Wool Insulation at the Outside
Thermal Conductivity	0.020 W/m.K	0.047-0.052 W/m.K
Water Absorption	Negligible Water Absorption (0.1%)	High Rate Water Absorption
Leakage	Negligible Air Leakage	Higher Chances of Air Leakage Due to Contraction and Expansion Over a Period of Time
Noise	Sound Proofing	Noisy
Product Life	Longer	Shorter Due to Corrosion
Duct Fabrication	Easier, Faster Installation	Complicated, Time Consuming
Energy Saving	Negligible Air Leakage and Better Thermal Conductivity of Insulation Make Electricity Saving Approach to 20%	Higher Electricity Costs
Appearance	Good-looking Appearance	Worse Appearance
Transportation Cost & Labor Cost	Low	High

Pre-insulated Duct Accessories and Tools



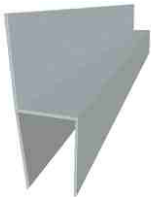
PVC Invisible Flange Joint



PVC Tee Connector Flange Joint



PVC H Bayonet



PVC Chair Section Bar



PVC U Section Bar



PVC F Section Bar



PVC Covering Angle



Aluminum Adhesive Tape



Zinc-coated Steel Angle Bracket



Zinc-coated Steel Shaped Disk



Aluminium Reinforcement Section Bar



Zinc-coated Steel Hanger



Special Glue



Silicone Sealant



Tool Box



Special Cutter



Manual Bending Machine



Aluminium Ruler

Insulated Flexible Duct



Insulated flexible duct is made of aluminum foil (single or double layer), steel wire helix and glass wool. Non-insulated aluminum flexible duct is made of aluminum foil (single or double layer) and steel wire helix. It is used for air conditioning system and other heat insulation system.

Technical Data

Jacket	Aluminum + Polyester Laminated (23-25micron thickness)
Insulation	25/30mm Thickness Fiber Glass Wool
Density of Fiber Glass Wool	16kg/m ³ , 24kg/m ³ , 32kg/m ³
Inner Duct	Aluminum + Polyester, reinforced with steel wire helix
Thickness of Inner Duct	32-35micron
Maximum Air Velocity	30m/s
Maximum Working Pressure	3000 Pa
Temperature Range	-30°C-150°C
Available Diameter (inches)	3"-20"
Standard Length	5/6/7.5/10meters
Packing	5/6/7.5/10meters in one carton box

Air Grille & Diffuser

Air Grille & Diffuser is made by Aluminum or ABS material, in aluminum nature color or with white spray-painting. Sizes can be custom-made.





Phenolic Foam Block and Pipe Insulation



Phenolic Foam Block is a highly efficient energy saving insulation material, with good thermal conductivity and fire resistance. The rigid Phenolic Foam Block can be cut into pipe section and pipe support in any diameter and any thickness to suit different cold and hot insulation purpose. The standard densities of Phenolic foam block are from 40kg/m³ to 80kg/m³, and the standard size is 2*1*0.8m.

Phenolic Foam Pipe Section & Support is fabricated from rigid closed cell phenolic foam block, with aluminum foil protected on the outside. It is used for cold and hot pipe insulation.



Technical Data of Phenolic Foam Pipe Section

Property	Standard	Specification
Standard Length		1000mm
Density	BS 4370	40-50kg/m ³
Thermal Conductivity	BS 4370	0.025W/m.K
Compressive Strength	ASTM D1621-00	91.8psi
Tensile Strength	ASTM 1623-00	40.9psi
Fire Rating	BS 476 Part 6 & 7	Class 0
Water Absorption	ASTM C209-98	0.0025
Dimension Change	ASTM 2121-99	0.003
CFCs & HCFCs	Headspace GC/MS	Free
Working Temperature		-250°C - 150°C
Foam acid and alkali		PH=6-7

Technical Data of Phenolic Foam Pipe Support

Property	Standard	Specification
Density	BS 4370	80kg/m ³
Thermal Conductivity	BS 4370	0.03W/m.K
Compressive Strength	ASTM D1621-00	1Mpa

Recommended Thickness for Hot & Cold Insulation

DN (mm)	Outside Diameter (mm)	Insulated Temperature (°C)															
		130	80	50	10	0	-10	-20	-30	-40	-60	-80	-10 0	-12 0	-14 0	-16 0	-19 0
15	22	45	25	20	20	25	30	35	40	45	50	60	65	70	75	80	85
20	27	45	30	25	25	30	35	40	45	45	55	60	70	75	80	85	90
25	33.4	50	30	25	25	30	35	40	45	50	60	65	75	80	85	90	95
32	42.2	50	30	25	25	30	35	40	45	50	60	70	75	80	85	90	100
40	48.3	55	35	25	25	35	35	45	50	55	65	70	80	85	90	95	100
50	60.3	55	35	25	25	35	40	45	50	55	65	75	80	90	95	100	110
65	73	60	35	30	30	35	40	50	55	60	70	80	85	95	100	105	115
80	89	60	35	30	30	35	40	50	55	60	70	80	90	100	105	110	120
100	114.3	65	40	30	30	40	45	50	55	65	75	85	95	105	110	115	125
125	141.3	65	40	30	30	40	45	55	60	65	80	90	100	110	115	120	130
150	168.3	70	40	30	30	40	45	55	60	70	80	90	100	120	120	125	135
200	219	70	40	30	30	40	45	60	65	70	85	95	110	120	125	135	145
250	273	75	45	30	30	45	50	60	65	75	90	100	110	125	130	140	150
300	323.8	75	45	35	30	45	50	60	65	75	90	105	115	130	135	145	155
350	356	75	45	35	35	45	50	60	70	75	90	105	120	130	140	145	160
400	406	80	50	35	35	45	50	60	70	80	95	110	120	130	140	150	160
450	457	85	60	40	35	45	50	60	70	85	100	115	125	135	145	155	170
Equipment Insulation		100	70	50	35	45	55	65	75	90	105	125	140	155	170	180	200



Phenolic Foam Insulation Board

Phenolic Foam Insulation Board comprises premium performance rigid phenolic foam faced on both sides or one side with aluminum foil, glass tissue, kraft paper, or no facing, etc.



Technical Data

Property	Standard	Specification
Thickness	mm	20-100
Standard Width	mm	600/1200
Length		Any length
Foam Density		40-60kg/m ³
Thermal Conductivity		0.02W/m.K
Fire Rating	BS 476 ASTM E-84 UL94-1998	Class 0 Class A 94V-0
Water Vapor Transmission (at 23°C, 50% R.H., 8.26mm thickness, 12 days)	ASTM E96-05	0.05g/hr/Sqm
Water Absorption(% by volume)	ASTM C209-98	0.25
Compressive Strength	ASTM D1621-00	137.7psi
Tensile Strength	ASTM D1623-00	61.4psi
Dimension Change	ASTM D 2121-99	0.3%
CFCs and HCFCs	Headspace GC/MS	Free

Part of project cases by Greenfoam products

Country	Location (City)	Project Name
Sri Lanka	Colombo	OrionCity (Sascon & Anton)
Sri Lanka	Colombo	Vauniya Main Building
Sri Lanka	Hambantota	International Convention Center
Sri Lanka	Colombo	Cinnaman Red (Sancity Hotel)
Korea	Giheung, Gyunggi-do	Samsung Main R&D Center
Korea	Seoul	E-Mart Shopping Center
Korea	Paju, Gyunggi-do	LG LCD Factory
Kuwait	Kuwait City	Bu Dastoor Motors Showroom
Qatar	Doha	Doha Bank
Oman	Muscat	Carrefour
Iran	Yazd	Yazd University
Iran	Yazd	Safaieh Hotel
Iran	Tehran	Evin Hotel
Iran	Kish Island	Kish International Airport
U.A.E	Dubai	Jumeirah Beach Residence - 5
U.A.E	Abu Dhabi	Liwa Village (Villa)
U.A.E	Dubai	Discovery Gardens
U.A.E	Dubai	IBN Battuta Shopping Mall
U.A.E	Dubai	Mall of The Emirates
U.A.E	Dubai	Mirdif City Center
Syria	Aleppo	ELSaad Pharma and Biotechnology
Trinidad&Tobago	Trinidad	The University of Trinidad&Tobago
Panama	Panama City	Bern Hotels & Resorts
Mauritius	Port Louis	Jeetoo Hospital
Mauritius	Belle Mare	Beau Rivage Hotel
Taiwan	Kaohsiung	Kaohsiung Metro (Subway)
Taiwan	Taipei	Taipei Metro (Subway)
Taiwan	Taipei	Taipei International Airport
Hong Kong	Hong Kong	H. K UNIVERSITY
Hong Kong	Hong Kong	H. K International Trade&Exhibition Center
Macao	Macao	Galaxy Starworld Hotel
China	Shanghai	Wal-Mart



China	Hangzhou	Hangzhou No. 1 Hospital
China	Shenzhen	Shenzhen Metro (Subway) - Line 2
China	Guangzhou	Baiyun International Airport
China	Guangzhou	The Venue of Asian (Sports) Games
China	Xiamen	SM Shopping Center
China	Xiamen	National Accounting Institute
China	Beijing	Beijing Metro (Subway) - Line 5
China	Beijing	Olympic Swimming Stadium
Thailand	Phichit	Phichit Plaza Hotel
Thailand	Saraburi	Saraburi Leadership Practice Center
Thailand	Bangkok	Arsiralertsiri's house
USA	Stanwood	Thermal Pipe Shields
Australia	Perth	Geographe Leisure Centre
Malaysia	Langkawi	Jeti Kuah Langkawi
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Container loading

Pre-insulated Duct Panels



10 sheets per carton box



660 pcs per 1*40'HQ

PID Duct Accessories



Insulated Flexible Duct



Air Grille and Air Diffuser



Phenolic Foam Blocks and Pipe Insulation



Pipe Insulation



Pipe Insulation



Phenolic Foam Blocks

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