# **NewGen**

# Pre-insulated Panels and Insulation Materials

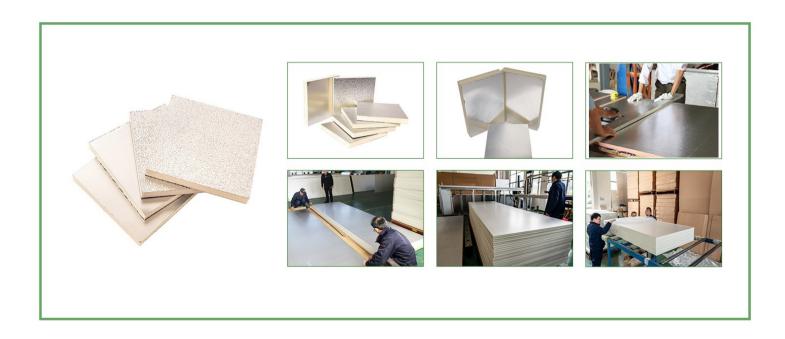


Canadian newgen ICF Ltd

# **NewGen**

PUR/PIR Foam Insulation Board is for wall and roof insulation, including PUR Foam Board Insulation and PIR Insulation Board. The facing materials include Fiberglass Tissue, Aluminum Foil Paper, Kraft Paper etc. We can customize the standard thickness of 10mm to 80mm.







PIR/PUR Foam Pre-insulated Panel

Phenolic Foam Pre-insulated Panel

PVC/Aluminium Flange











## PIR/PUR Foam Pre-Insulated Panel

PIR / PUR Foam Pre-insulated Panel consist of 20mm thickness PIR / PUR 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 aluminium 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 sliver, 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:









Smooth AL foil

Black AL foil

200mic embossed AL sheet

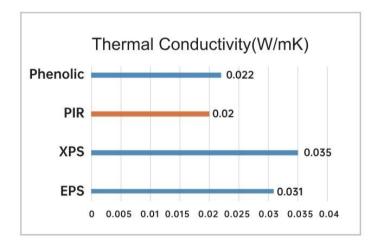
200mic pre-painted GI sheet

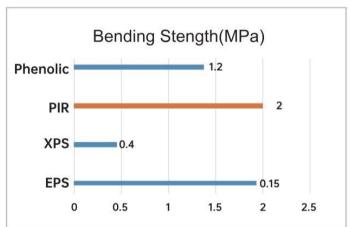
#### **Technical Data**

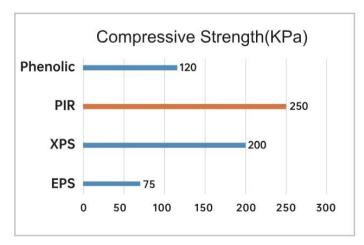
Property	Unit	Specification			
Standard Size	mm	3950*1200*20			
Foam Density	kg/m³	50-55			
CFCs and HCFCs		Free			
Aluminum Foil Thickness	micron	80			
Aluminum Sheet Thickness	micron	200			
Thermal Conductivity	W/m.K 0.02				
Fire Rating		BS 476 Part 6&7 Class 0			
Compressive Strength	Мра	0.25			
Bending Strength	Мра	2			
Water Absorption	%	0.1			
Dimension Change	%	0.3			
Maximum Wind Velocity	m/s	13-20			
Maximum Running Temperature	°C	80			

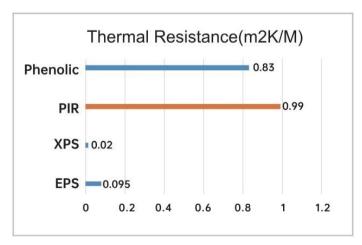
# Why Choose PIR/PUR Foam Pre-insulated Panels?

- \* Fire-resistant and high-quality insulation materials.
- \* Many advantages over regular metal, such as lighter weight, higher strength, longer durability, and better efficiency.
- \* Different facing materials to meet different requirements and applications.
- \* R-value









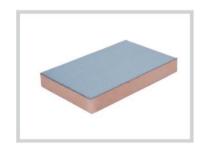
## Phenolic Foam Pre-insulated Panel



Phenolic Foam Pre-insulated Panel consist of 20mm 80mm thickness Phenolic insulation foam and faced with Aluminum Foil or Galvanized Iron on both sides. Phenolic Foam Pre-insulated Panel has the feature of fireproof, effective thermal insulation, better sound absorption properties, sanitary, beautiful and morden, light weight, easy to install, long service life, etc.



Silver AL foil



200mic embossed AL sheet



Black AL foil

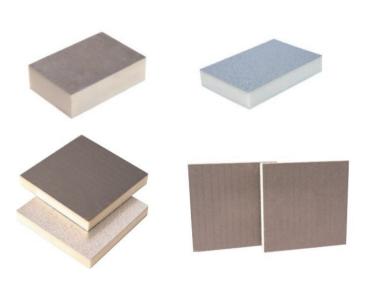
#### **Technical Data**

Property	Unit	Specification				
Standard Size	mm	3950*1200*20				
Foam Density	kg/m³	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	Мра	0.25				
Bending Strength	Мра	2				
Water Absorption	%	0.25				
Dimension Change	%	0.3				
Maximum Wind Velocity	m/s	13-20				
Maximum Running Temperature	℃	120				

## PIR/Phenolic Foam Insulation Board

#### PIR Foam Insulation Board

PIR Foam Insulation Board consist of Polyisocyanurate(PIR) foam insulation, faced on both sides with 0.6mm fiberglass tissue or 0.06mm aluminium foil. The standard width of \_PIR Insulation board is 1200mm or 600mm. The length can be customized. The insulation thickness and facing materials can be changed as per different application or project specifications.







## **Technical Data**

Property	Standard	Specification				
Standard Width		600/1200mm				
Thickness		10-140mm				
Foam Density	ASTM D1622/D1622M-14	35-40kg/m3				
CFCs and HCFCs	Headspace GC/MS	Free				
Thermal Conductivity	ASTM C518-17	≤0.024W/m. K				
Fire Rating	BS 476 Part 6&7	Class 0				
Compressive Strength	ASTM D1621-16	≥0.15Mpa				
Tensile Bond Strength	DB34/T 3826 2021	≥0.15Mpa				
Water Absorption by Volume	ASTM C209-15	<3%				
Dimensional Stability		70°C 48h≤1.5% -30°C 48h≤1.0%				
Service Temperature	DB34/T 3826-2021	-30°C - 120°C				

# 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 figid 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  $40 \text{kg/m} \ 3 \ to \ 80 \text{kg/m}^*$ , and the standard size is 2\*1\*0.8 m.

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 Lengh		1000mm				
Density	BS 4370	40-50kg/m <sup>3</sup>				
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	Specfication							
Density	BS 4370	80kg/m³							
Thermal Conductivity	BS 4370	0.03W/m.K							
Compressive Strength	ASTM D1621-00	1Mpa							

# RecommendedThickness for Hot & Cold Insulation

DN	Outside Diameter		Insulated Temperature (°C)														
(mm)	(mm) (mm)	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
	oment ation	100	70	50	35	45	55	65	75	90	105	125	140	155	170	180	200



# **NewGen**

# Canadian newgen ICF Ltd.

Tel: 778-636-1356 - 778-317-0048

Add: 200-1343 Lonsdale Ave North Vancouver, BC V7M 2H7

E-mail: inquire@canadiannewgenicf.ca Website: www.canadiannewgenicf.ca