

R-Panel Roof Insulation

Description

R-Panel is a rigid roof insulation board composed of a closed cell polyisocyanurate foam core bonded in the foaming process to universal fiber glass reinforced facers.

R-Panel utilizes an environmentally compliant blowing agent containing pentane hydrocarbon to enhance the thermal performance of the foam insulation. This hydrocarbon has zero ozone depletion potential and conforms to the Montreal Protocol established in 1987.

R-Panel meets the physical property requirements of ASTM C 1289-01 Type II, Class I, Grade 2 and CAN/ULC S 704.

Use

R-Panel provides high thermal insulation value over metal, nailable, and non-nailable roof decks in built-up, modified bitumen and single ply membrane roofing systems. It may be applied using hot bitumen, cold adhesives or mechanical fasteners. The universal facer on the top and



bottom side provide a suitable surface for mechanical attachment to a structural deck as well as a suitable surface to apply hot asphalt or cold adhesives. R-Panel meets the International Building Code requirements for a foamed plastic roof insulation.

Advantages

- High thermal efficiency
- Universal facer that is compatible with BUR, modified bitumen and single ply membrane systems
- Complies with EPA, CEPA and Montreal Protocol requirements
- Meets Clean Air Act Amendments of 1990

Typical Physical Properties

	Values	Test Method
Water Absorption	<3.5%	ASTM D 2842
Dimensional Stability Change.....	<2%	ASTM D 2126
Compression Resistance*		
10% Consolidation-psi (kPa) ...	20 (138) min.....	ASTM D 1621
Moisture Vapor Permeance	<1 perm.....	ASTM E 96
	(57.5 ng/(Pa•s•m ²))	
Service Temperature	-100 to 200°F	
	(-73° to 93°C)	
Tensile Strength-psf (kPa)	730 (35) nom.	ASTM D 1623

*Also available in 25 psi (172 kPa).

For Use Over Metal Decks

The minimum thicknesses of R-Panel insulation over metal decks are as follows:

Width of Rib Opening	Up to 2 1/2" (67 mm)	Up to 3 3/4" (86 mm)	Up to 4 3/4" (111 mm)
Thickness of Insulation (Minimum)	1.0" (25 mm)	1.2" (30 mm)	1.3" (33 mm)

Sizes

R-Panel is available in 4' x 4' (1.22 m x 1.22 m) or 4' x 8' (1.22 m x 2.44 m) boards (other sizes available by special request) and in thicknesses of 1.0" (25 mm) to 4.0" (102 mm).

Thermal Performance

Thickness (nom.)	C-Value (Conductance)		R-Value (Resistance)	
	in	mm	(hr-ft ² ·°F)/BTU	m ² ·°C/W
1.0	25	.167	0.95	6.0
1.5	38	.111	0.63	9.0
1.6	41	.104	0.59	9.6
1.7	43	.098	0.55	10.3
1.8	46	.092	0.52	10.9
2.0	51	.082	0.47	12.1
2.3	58	.071	0.41	14.0
2.5	64	.063	0.37	15.3
2.7	69	.060	0.34	16.6
3.0	76	.054	0.31	18.5
3.2	81	.051	0.29	19.8
3.3	84	.049	0.28	20.4
3.4	86	.047	0.27	21.1
3.6	91	.045	0.25	22.4
3.8	97	.042	0.24	23.7
4.0	102	.040	0.23	25.0

*Long Term Thermal Resistance (LTTR)

*The Long Term Thermal Resistance (LTTR) values were determined in accordance with CAN/ULC S 770.

The ultimate R-Value of these products will depend on individual installation circumstances.

Refer to the Material Safety Data Sheet and Product Label prior to using this product.

LIMITED WARRANTY/SPECIFICATIONS

All products sold are subject to the following limited warranty: Seller warrants that for a period of one year from the date of shipment the product will be free from defects in material and workmanship and is manufactured in all material respects to Seller's product specifications. Note: Seller's products may vary in details of design and construction from descriptions in any literature or from any sample, display or other model inspected by Purchaser.

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