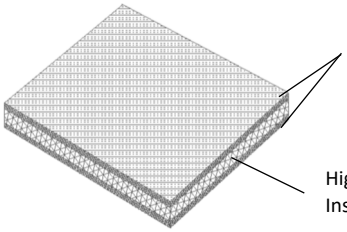
RICH-E-BOARD™

R-50 SYSTEMS LLC
ROOF PANEL
HIGH DENSITY COMPOSITE VACUUM INSULATED PANEL

Meets the requirements of ASTM C 1484
Meets the requirements of ASTM C 1289, Type II, Class 4, Grades 1,2 and 3
Currently no ASTM designation for this composite

High Performing, VIP Composite, Sustainable, Saves Energy, Reduces Construction Costs



Provides thermal conductivity equal or less than 0.02 BTU-in./ft.^{2}-hr-F° per 1" VIP thickness.*

FEATURES & COMPONENTS

- **High R-Value Insulated Core:** High performance fiber-glass core vacuum sealed in a plastic reinforced barrier.
- **Laminated High-Density Polyisocyanurate Foam Core:** Closed cell Polyisocyanurate foam provides protection, added insulation, with lightweight and low water absorption characteristics.
- **Material Thinness:** Provides low profile applications that conventional insulation cannot provide. Less handling, less disposal and less labor.
- **Lightweight:** Easy loading and maneuverability around the roof. Reduces the concern of overloading roof deck capacity.
- **Environmentally Friendly:** Less transportation costs, less volume of materials and less impact on landfills.
- **Resistant to Damage:** High impact capabilities, compressively strong with the ability to withstand heavy roof foot traffic.

PACKAGING & DIMENSIONS

Standard Flat Sizes	3' x 4' x 1-1/2" [1] (0.915m x 1.22m x 3.81m)
Production Location	Newark, OH
Board Weight	27 lb. (12.25 kg)
Coverage per Pallet	312 ft^2
Boards per Pallet	26 bds.
Pallet Weight	702 lbs.
Pallets per Truck	12 pallets [2]

[1] Custom-sized panels available
[2] Pallets can not be stacked

SYSTEM COMPATIBILITY

SYSTEMS	TPO	PVC	EPDM
	Fully Adhered	Fully Adhered	Fully Adhered
	Paver	Paver	Paver
	Vegetative	Vegetative	Vegetative

ENERGY & ENVIRONMENT

LEED®	Recycled Content	Pre-Consumer: 1.21%
		Post-Consumer: 0.65%

Percentages vary based on thicknesses. Report available upon request.

APPROVED STANDARD
ANSI/SPRI RP-4 2013
ANSI/FM 4474

INSTALLATION/APPLICATION


Fully Adhered System


Loose-Laid Paver System


Vegetative System

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

PRODUCT DATA SHEET | RICH-E-BOARD

R-50 INSULATION SYSTEMS™
Imagine the Advantage.
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HIGH DENSITY COMPOSITE VACUUM INSULATED PANEL

R-50 value in 1” thickness · Energy Efficiency with Net Zero Waste

Meets the requirements of ASTM C 1484

TYPICAL PHYSICAL PROPERTIES	TEST	ASTM	R-50 Insulation Panel	
	Thickness		0.065 inch increments	1.65 mm increments
	Density	D1622	16 lb/ft³	256 kg/m³
	Thermal Conductivity	ASTM C518	0.02 BTU·in/hr·ft²·°F	.00288 W/m.K
	Flexural Yield Strength	ASTM C203	@10% 45psi	0.31 MPa
	Flexural Modulus	ASTM C203	7400 psi	51.0 MPa
	Flame Spread (Vacuum Insulated Panel)	E84	Class A	Pass
	Compressive Strength @ 10% compression	C165/D1621	9 psi/as composite 17psi	62 kPa/as composite 117.21 kPa
	Mold Resistance	D3273	-	Pass

Insulation Type	Thickness		Normal R-value (Resistance)	
	In.	mm.	hr·ft²·°F/BTU	m²·K/W
High Performance Vacuum Insulated Panel	1”	25.4	50	8.806

Meets the requirements of ASYM C 1289, Type II, Class 4, Grades 1,2 and 3

TYPICAL PHYSICAL PROPERTIES	TEST	ASTM	R-50 Insulation Panel	
			English Units	Metric Units
	Compressive Strength , psi (kpa), *nom*	D1621	150 psi	1,034 kPa
	Flexural Strength Modulus of Rupture, psi (kpa), *nom* Breakload, LBF (kN), *nom*	D1037	 1500 psi 25 psi	 10,343 kPa 0.11 kPa
	Moisture Vapor Permeance, Perm (ng/(Pa·s·m²)), *max*	E96	<1	<57.5
	Water Absorption, % by vol, *max*	C209	<4	-
	Surface Water Absorption, gram, *max*	C473	<1	-
	Mold Resistance	D3273	Pass	Pass
	Flame Spread (Vacuum Insulated Panel)	E84	Class A	Pass

Insulation Type	Thickness		Normal R-value (Resistance)	
	In.	mm.	(hr·;²·°F)/BTU	m²·°C/W
High Density Polyisocyanurate Foam w/ Mineral Coated Fiber Glass-Reinforced Facer	1/4”	6.4	1.2	0.21

*Tested in accordance with ASTM C518 (heat flow meter).

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