

ISOCLAD

1 | Product Name

ISOCLAD

2 | Manufacturer

ISOCLAD is manufactured by Isofoam Group, a premier manufacturer of insulation products for over 40 years.


Isofoam Group

1346, boul. Vachon Nord
Sainte-Marie (Québec) G6E 1N4
T: 418 387-3641 | F: 418 387-4039
info@isolofoam.com

3 | Product Description

ISOCLAD is a patented composite panel made of high density expanded polystyrene laminated to an air-barrier / non vapour barrier membrane composed of extra thin polyethylene fibre (DuPont™ Tyvek® HomeWrap®).

4 | Dimensions

Dimensions	Thicknesses	R Value (RSI)
48" x 96" Shiplapped 4 sides 	1/2" Butt edge	2.1 (0.37)
	3/4" Butt edge	3.2 (0.56)
	1"	4.66 (0.82)
	1 1/8"	5.0 (0.88)
	1 1/2"	6.7 (1.18)
	1 3/4"	7.5 (1.33)
	2"	8.6 (1.51)
	2 1/4"	9.5 (1.67)
	2 1/2"	10.6 (1.87)
	3"	12.6 (2.22)

Also available: other thicknesses; 24" x 96", 48" x 108" and / or butt edge or shiplapped 2 sides.

5 | Applications

Exterior insulation for above grade walls

- **ISOCLAD** is an air barrier/non vapour barrier insulation panel with a laminated membrane.
- Ideal for residential, commercial, industrial and institutional buildings, both new construction and retrofit.
- Eliminates thermal bridges and protects the structure.
- For residential construction, the 4'x 9' product should be installed preferably vertically allowing to cover the sill plate, top plates and floor joist, thereby eliminating thermal bridges present in these areas.
- Its installation is not restricted by the Ratio of Outboard to Inboard Thermal Resistance.
- Can be installed directly on metal and wood studs.
- For exterior walls without a sheathing membrane, **ISOCLAD** composite panels can replace the two layers of sheathing membranes. No need to add another exterior sheathing.
- Can be used in an air-barrier system when the edges of the panels are sealed with an air-barrier tape or a sealing membrane.



6 | Environmental Data

Containing 98% air and only 2% of plastics, **ISOCLAD** presents lower risks of toxicity than those from conventional building materials and it does not and has never contained HCFCs or HFCs that damage the ozone layer.

ISOCLAD has been certified to meet the third-party low chemical emissions standards for **UL-GREENGUARD** and **UL-GREENGUARD Gold** Certifications (UL.COM/GG).

Isofoam Group products contribute to obtaining LEED® credits (see table 1).

For complete details of the potential contributions of the product for a LEED® Canada-NC-CS 2009 or a LEED® Canada for Homes 2009 project, contact us or fill out the form on our website.

Table 1. Contribution of **ISOCLAD** insulation to LEED® Canada-NC 2009, LEED® Canada-CS 2009 certification.

Categories	LEED® Canada NC & CS 2009
SS Sustainable Sites	
WE Water Efficiency	
EA Energy and Atmosphere	28 points for LEED® Canada-NC 2009
MR Materials and Resources	&
EQ Indoor Environmental Quality	30 points for LEED® Canada-CS 2009
IDP Innovation & Design Process	
RP Regional Priority	

Contact us for more information.

7 | Warranty

ISOCLAD meets the standards and requirements of :

- CAN/ULC-S701, Type 2
- **CCMC # 12980-R - Exterior sheathing**
- **CCMC # 12981-R - Air barrier material**
- Product certified for low chemical emissions: **GREENGUARD - UL 2818** and **GREENGUARD Gold - UL 2818**.

9 | Advantages & Benefits

Superior Insulation

- **ISOCLAD** increases the insulating value of a building's envelope.
- As an exterior insulation it contributes to maximizing the insulating performance of the wall by stopping water, air and cold before it penetrates the wall.
- Stable and permanent insulating values.
- **ISOCLAD** allows to meet the highest insulation requirements.

Breathable

- The product does not trap moisture in the wall, therefore it reduces risk of mould and moisture damage.
- Peace of mind - Non vapour barrier.
1": nearly 3 times more permeable to water vapor than the minimum required of ≥ 60 ng to be considered as a non-vapor barrier material.
- **ISOCLAD** can be installed on the exterior of the wall without restricting the movement of indoor moisture throughout the wall assembly.

Easy Installation

- Easy handling and installation, especially with scaffolding.
- No need to add another exterior sheathing.
- **ISOCLAD** insulation panels provide a resistant product that is less susceptible to handling damage and improves tape adhesion when needed.
- Handling and installation time are minimized thanks to lightweight products that are available in a wide variety of formats and thicknesses.

8 | Technical Data

Table 2. Physical Properties of ISOCLAD

PROPERTIES	METHODS	UNITS	ISOCLAD
THERMAL RESISTANCE	ASTM C-518	$m^2 \cdot ^\circ C / W / 25 \text{ mm}$ ($h \cdot r \cdot e \cdot f \cdot t^2 \cdot ^\circ F / B \cdot t \cdot u / i \cdot n$)	See dimensions' table on page 1
AIR PERMEABILITY	2005 NBC 5.4.1.2-1	$L / s \cdot m^2$	0.002
COMPRESSIVE STRENGTH MIN.	ASTM D-1621	kPa (psi)	110 (16)
FLEXURAL STRENGTH MIN.	ASTM C-203	kPa (psi)	240 (35)
WATER VAPOR TRANSMISSION	ASTM E-96	$ng / Pa \cdot s \cdot m^2$ (perms)	1" 176.5 (2.94)
			2" 74.9 (1.25)
WATER ABSORPTION MAX.	ASTM D-2842	%	4
DIMENSIONAL STABILITY	ASTM D-2126	%	0.5
COEFFICIENT OF THERMAL EXPANSION	ASTM D-696	$mm / mm / ^\circ C$ ($in / in / ^\circ F$)	6×10^{-5} (3.5×10^{-5})
EFFECTIVE TEMPERATURE RANGE MAX.	CONTINUOUS	$^\circ C$ ($^\circ F$)	75 (167)
	INTERMITTENT	$^\circ C$ ($^\circ F$)	82 (180)
FLAME SPREAD	CAN/ULC S102.2M	-	240

The Material Safety Data Sheet of Isofoam Group products is available on the website.

10 | Installation

ISOCLAD is easy to handle and install. It can be cut with a utility knife.

As specified by DuPont, the product DuPont™ Tyvek® HomeWrap® must be covered within 120 days after installation.

Refer to Master Specifications available on the website for more information.

11 | Maintenance

No maintenance is required after **ISOCLAD** panels are properly installed.

12 | Technical Services

Our experts will be pleased to answer your questions regarding application and installation of our products.

13 | Availability & Cost

Availability: Throughout eastern Canada.
Cost: Current price list available on request.

14 | Limitations

Combustible if exposed to an open flame or other substantial and sustained source of combustion. Avoid contact with petroleum-based solvents or their vapours. Avoid prolonged exposure to direct sunlight.

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