

ISORAD V2

1 | Product Name

ISORAD V2 160

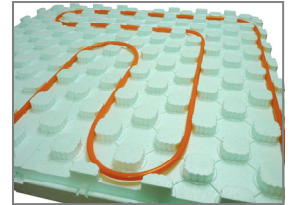
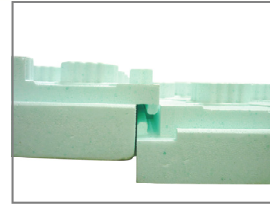
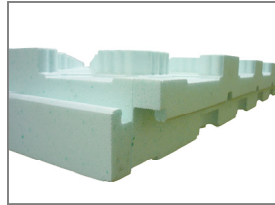
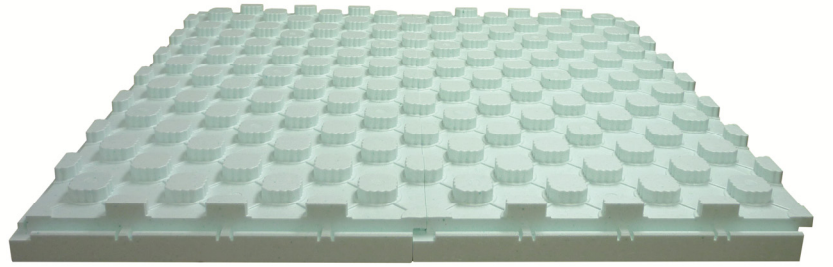
ISORAD V2 300

2 | Manufacturer

ISORAD V2 is manufactured by Isofoam Group, a premier manufacturer of insulation products for over 40 years.

Isofoam Group

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3 | Product Description

ISORAD V2 is a rigid high-density expanded polystyrene insulation with a multidirectional tube retaining system and the **ISOCLICK ALIGN** clipping system on 4 sides.

4 | Dimensions

Dimensions	Thicknesses	R Value (RSI)
ISORAD V2 160		
48" x 48" IC4A	2 1/2" (overall 3 1/2")	10.1 (1.77)
	3 3/4" (overall 4 3/4")	15.1 (2.66)

Dimensions	Thicknesses	R Value (RSI)
ISORAD V2 300		
48" x 48" IC4A	2 1/2" (overall 3 1/2")	10.6 (1.87)
	3 3/4" (overall 4 3/4")	15.9 (2.80)

For 1/2" tube (Ø int. 1/2", Ø ext. 5/8") or 5/8" tube (Ø int. 5/8", Ø ext. 3/4").

Also available : 24" x 48".

Contact us for more informations.

5 | Applications

Insulation panel for hydronic radiant floor heating

- For installation under a residential, commercial or industrial concrete slab.
- Can also be used under slabs, sidewalks and outdoor parking lots to accelerate melting of ice and snow during winter.
- Reduces the cost of installing a hydronic radiant floor heating system.
- Simplifies installation of the tubing for hot water or glycol floor heating systems.
- Can be used with certain electrical systems according to manufacturer's specifications.

6 | Environmental Data

Containing between 95% and 98% air and only 2% to 5% of plastics, **ISORAD V2** presents risks of toxicity lower than those from conventional building materials and it does not and has never contained HCFCs or HFCs that damage the ozone layer.

The product **ISORAD V2** has been certified to meet the third-party 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 **ISORAD** 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	

7 | Warranty

ISORAD V2 meets the standards and requirements:

- CAN/ULC-S701, Type 2
- Product certified for low chemical emissions: **GREENGUARD - UL 2818** and **GREENGUARD Gold - UL 2818**.

9 | Advantages & Benefits

Superior insulation

- Stable and permanent insulation value.
- Prevents heat loss through the soil. Efficient thermal barrier ensuring permanent energy savings.
- **ISORAD V2** allows to meet the highest insulation requirements.
- High compressive strength. Available in 16 psi (110 kPa) or 30 psi (210 kPa).

Multidirectional retaining system

- Simplifies tubing installation. The tubing retaining system layout allows multidirectional installation.
- Eliminates the need for wire mesh when it is not required for slab reinforcement.
- The raised lines and rings (circles) around the nubs enable a spacing between insulation panel and tubing to maximize the contact of the concrete with the tubes.
- Provides a regular interval of tubing.

ISOCLICK ALIGN clipping system

- Clipping system ensuring continuity of insulation. Once installed, panels are **clipped** together and remain in place during installation.
- Contains notches to position easily and quickly the panels and ensuring the alignment of the nubs.

8 | Technical Data

Table 2. Physical Properties of ISORAD V2 160*

PROPERTIES	METHODS	UNITS	ISORAD V2 160
THERMAL RESISTANCE	ASTM C-518	m ² •°C/W/25 mm (hr•ft ² •°F/Btu/in)	0.71 (4.05)
COMPRESSIVE STRENGTH MIN.	ASTM D-1621	kPa (psi)	110 (16)
FLEXURAL STRENGTH MIN.	ASTM C-203	kPa (psi)	240 (35)
WATER VAPOR TRANSMISSION MAX.	ASTM E-96	ng/Pa•s•m ² (perms)	200 (3.5)
WATER ABSORPTION MAX.	ASTM D-2842	%	4
DIMENSIONAL STABILITY MAX.	ASTM D-2126	%	1.5
COEFFICIENT OF THERMAL EXPANSION	ASTM D-696	mm/mm/°C (in/in/°F)	6 X 10⁻⁵ (3.5 X 10⁻⁵)
	CONTINUOUS	°C (°F)	75 (167)
EFFECTIVE TEMPERATURE RANGE MAX.	INTERMITTENT	°C (°F)	82 (180)
	CAN/ULC S102.2M	-	240

Physical properties of **ISORAD V2 300** available on request.

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

10 | Installation

ISORAD V2 insulation panels are easy to handle and install. They can be cut with a utility knife.

Installation tips:

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

Integrated start arrow

- To begin installation, locate the arrow on the panel and point it to the corner of the wall. Install all the panels in the same direction.



Cutting lines on the back of panel

- Help to start a new row using leftover panels ensuring the retaining system is well aligned for tubing installation.



11 | Maintenance

No maintenance is required after **ISORAD V2** 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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