

# PRODUCTS INFO

# **TECHNICAL DATA SHEET 180-2.3**

07.21.13.13

# ISO R PLUS premium

# 1 | Product Name ISO R PLUS premium

### 2 | Manufacturer

**ISO R PLUS premium** is manufactured by Isolofoam Group, a premier manufacturer of insulation products for over 40 years.

#### **Isolofoam Group**

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### 3 | Product Description

**ISO R PLUS premium** is a rigid insulation panel made of expanded polystyrene with graphite particles (NEOPOR® by BASF-SE) with a laminated reflective vapour barrier membrane.

# 4 | Dimensions

Dimensions	Thicknesses	R Value (RSI)
48" x 97 1/4" Butt edge	1/2"	2.3 (0.40)
	3/4"	3.45 (0.61)
	1"	4.6 (0.81)

Also available: 48" x 109 1/4", other thicknesses.

# 5 | Applications Interior insulation for walls and ceilings

- ISO R PLUS premium is a rigid insulation panel made of Neopor<sup>®</sup> with a laminated membrane reflecting radiant energy.
- Ideal for residential, commercial, industrial and institutional buildings.
- Both new construction and retrofit.
- The product can be used as part of an air-barrier system that complies with CNB 2005.
- ISO R PLUS premium reduces heat loss and reflects radiant energy to improve indoor comfort.
- To ensure continuity of the vapour barrier, joints must be sealed with a reflective waterproofing membrane.
- No need to add another vapour barrier membrane.



## 6 | Environmental Data

Containing 98% air and only 2% of plastics, **ISO R PLUS premium** 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.

The product **ISO R PLUS premium** has been certified to meet the third-party chemical emissions standards for **UL-GREENGUARD** and **UL-GREENGUARD Gold** Certifications (**UL.COM/GG**).

Isolofoam Group products contribute to obtaining LEED<sup>®</sup> credits (see table 1).

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

Contact us for more information.

**Table 1.** Contribution of **ISO R PLUS premium** insulation to LEED<sup>®</sup> Canada-NC 2009, LEED<sup>®</sup> Canada-CS 2009 certification.

	Categories	LEED <sup>®</sup> Canada NC & CS 2009
SS	Sustainable Sites	
WE	Water Efficiency	
EA	Energy and Atmosphere	30 points for LEED <sup>®</sup> Canada-NC 2009
MR	Materials and Resources	&
EQ	Indoor Environmental Quality	32 points for LEED <sup>®</sup> Canada-CS 2009
IDP	Innovation & Design Process	
RP	Regional Priority	



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## 7 | Warranty

ISO R PLUS premium meets the standards and requirements of:

- CAN/ULC-S701, Type 2
- CCMC # 12895-L
- Product certified for low chemical emissions: GREENGUARD - UL 2818 and GREENGUARD Gold - UL 2818.

# 9 | Advantages & Benefits Superior insulation

- Made of expanded polystyrene with graphite particles (NEOPOR®, BASF-SE). ISO R PLUS premium offers a greater insulation value for a thickness equivalent to a traditional expanded polystyrene product.
- Vapour barrier : creates a barrier that prevents water vapour and moisture from inside to pass through the insulation to the wall structure which would result in an appropriate environment for mould growth.
- Air-barrier: ISO R PLUS premium, contribute to maximizing the energy efficiency of the wall by sealing your home against air infiltrations.
- Stable and permanent insulating values.
- **ISO R PLUS premium** allows to meet the highest insulation requirements.

#### Reflect heat

 The membrane of ISO R PLUS premium reflects 95% of radiant energy, thereby transferring heat generated by energy sources such as lighting, increasing insulation performance for better comfort and energy savings.

#### **Easy Installation**

- · Easy handling and installation.
- · Lightweight: Reduces pain or injuries caused by heavy materials handling (3.5 lb/panel of 3/4").
- Flexible, it facilitates the passage of electrical wires.
- Its optimal dimensions reduces labour time, joints and waste.
- · No cutting dust.

# 8 | Technical Data

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#### Table 2. Physical Properties of ISO R PLUS premium

PROPERTIES	METHODS	UNITS	ISO R PLUS premium
THERMAL RESISTANCE MIN.	ASTM C-518	m <sup>2</sup> •°C/W/25 mm (°F•ft <sup>2</sup> •h/Btu/in)	See dimensions' table on page 1
COMPRESSIVE STRENGTH MIN.	ASTM D-1621	kPa (psi)	124 (18)
FLEXURAL STRENGTH MIN.	ASTM C-203	kPa (psi)	240 (35)
WATER VAPOUR TRANSMISSION	ASTM E-96	ng/Pa•s•m² (perms)	1 (0.017)
WATER ABSORPTION MAX.	ASTM D-2842	%	3
DIMENSIONAL STABILITY MAX.	ASTM D-2126	%	1.5
COEFFICIENT OF THERMAL EXPANSION	ASTM D-696	mm/mm/°C (in/in/°F)	6 X 10 <sup>-5</sup> (3.5 X 10 <sup>-5</sup> )
EFFECTIVE TEMPERATURE RANGE MAX.	CONTINUOUS	°C (°F)	75 (167)
ETT LOTTLE TERM ENATIONE NAME MAX.	INTERMITENT	°C (°F)	82 (180)
FLAME SPREAD	CAN/ULC S102.2M	-	230
VAPOUR BARRIER EMISSIVITY	ASTM C-1371	-	0.05

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

### 10 | Installation

ISO R PLUS premium is easy to handle and install. It can be cut with a utility knife.

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

#### 11 | Maintenance

No maintenance is required ISO R PLUS premium 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.

Follow the specifications of storage specified on the packages.

Isolofoam Group

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