

1 | Product Name

ISOLOFOAM XHD 200
ISOLOFOAM XHD 300
ISOLOFOAM XHD 400

2 | Manufacturer

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

Isofoam Group

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3 | Product Description

ISOLOFOAM XHD Series is a rigid high-density expanded polystyrene insulation designed for applications where standards require a high compressive strength.

4 | Dimensions

Dimensions	Thicknesses	R Value (RSI)	R Value (RSI)	R Value (RSI)
		XHD 200	XHD 300	XHD 400
24" x 96" *		Shiplapped 4 sides	Shiplapped 4 sides	Butt edge
	1"	4.20 (0.74)	4.25 (0.75)	4.35 (0.77)
	1.2"	5.0 (0.88)	5.1 (0.90)	5.2 (0.92)
	1.5"	6.3 (1.11)	6.35 (1.12)	6.5 (1.15)
	1.8"	7.55 (1.33)	7.65 (1.35)	7.8 (1.38)
	2"	8.4 (1.48)	8.5 (1.50)	8.7 (1.54)
	2.4"	10.0 (1.76)	10.2 (1.80)	10.4 (1.84)

Also available: other thicknesses; 48" x 96" and/or butt edge or shiplapped 2 or 4 sides.

***ISOLOFOAM XHD 200** is also available in :

1" x 48" x 108", shiplapped 2 sides
1" x 48" x 112", shiplapped 2 sides

Contact us for more informations.

5 | Applications

Residential, Commercial or Industrial Concrete Slabs

- Guarantees high performance insulation under the concrete slab where greater compressive strength is needed.

Exterior Foundations

- Ensures foundation walls are insulated from the outside in applications where heavy traffic is expected in proximity to the building.

Terraces and Parking Areas

- Maintains stability under freeze-thaw conditions.

Recreation Centers and Skating Rinks

Adding **ISOLOFOAM XHD Series** insulation under skating rinks reduces:

- Frost penetration in the platform.
- The cooling capacity requirements of the skating surface.
- Energy costs for continuous skating rink usage.
- Ice making and de-icing time for multi-use skating rinks.

Roadway Insulation

- Used as an anti-freeze layer for roadway and railway construction.
- Helps distribute loads under roadways and bridge access routes in areas where the ground is unstable.
- Distributes loads on swampy ground through its high resistance to sagging and shearing.
- Prevents structural settlement due to its lightweight.
- Since the 1990s, the Quebec Ministry of Transportation has considered expanded polystyrene as a tried and tested product for roadways. It has been used in a number of countries since the early 1960s (Ref.: MTQ 14301).



6 | Environmental Data

Containing between 95% and 98% air and only 2% to 5% of plastics, **ISOLOFOAM XHD Series** 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 **ISOLOFOAM XHD Series** 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 **ISOLOFOAM XHD** insulation to LEED® Canada-NC 2009, LEED® Canada-CS 2009 certification.

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

7 | Warranty

Products of **ISOLOFOAM XHD Series** meet the standards and requirements:

- CAN/ULC-S701
Type 2 (**XHD 200**)
Type 3 (**XHD 300, XHD 400**)
- **CCMC # 12895-L (XHD 200)**
- **CCMC # 13638-L (XHD 300, XHD 400)**
- MTQ Standard 14301 (**XHD 400**)
- Product certified for low chemical emissions: **GREENGUARD - UL 2818** and **GREENGUARD Gold - UL 2818**.

9 | Advantages & Benefits

High Compressive Strength

- The compressive strength of the high density **ISOLOFOAM XHD** products varies between 140 kPa (20 psi) and 275 kPa (40 psi).
- Resistance and dimensional stability of **ISOLOFOAM XHD Series** provides a good absorption of building movement.
- Insulation products of **ISOLOFOAM XHD Series** allow to meet the highest insulation requirements.

Long-life Thermal Efficiency

- Even when exposed to periods of intense freeze-thaw, **ISOLOFOAM XHD Series** helps save energy, year after year, with no loss in efficiency.

Water Absorption Effect

- Expanded polystyrene is often used for applications such as floating docks or lightweight fill because of its stability and durability properties and its tolerance to humidity and mould, as a result of its closed-cell uniform structure.
- No risk to the water table, microorganisms or small animals, as the product is biologically neutral.

Easy to Use

- 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 **ISOLOFOAM XHD Series**

PROPERTIES	METHODS	UNITS	XHD 200	XHD 300	XHD 400
THERMAL RESISTANCE	ASTM C-518	m ² ·°C/W/25 mm (hr·ft ² ·°F/Btu/in)	0.74 (4.20)	0.75 (4.25)	0.77 (4.35)
COMPRESSIVE STRENGTH MIN.	ASTM D-1621	kPa (psi)	140 (20)	210 (30)	275 (40)
COMPRESSIVE MODULUS	ASTM D-1621	kPa (psi)	-	-	9000 (1305)
FLEXURAL STRENGTH MIN.	ASTM C-203	kPa (psi)	270 (39)	350 (50)	414 (60)
WATER VAPOR TRANSMISSION MAX.	ASTM E-96	ng/Pa·s·m ² (perms)	130 (2.3)	130 (2.3)	130 (2.3)
WATER ABSORPTION MAX.	ASTM D-2842	%	2	1.8	1.5
DIMENSIONAL STABILITY	ASTM D-2126	%	0.5	0.5	0.5
COEFFICIENT OF THERMAL EXPANSION	ASTM D-696	mm/mm/°C (in/in/°F)	6 X 10 ⁻⁵ (3.5 X 10 ⁻⁵)	6 X 10 ⁻⁵ (3.5 X 10 ⁻⁵)	6 X 10 ⁻⁵ (3.5 X 10 ⁻⁵)
EFFECTIVE TEMPERATURE RANGE MAX.	CONTINUOUS	°C (°F)	75 (167)	75 (167)	75 (167)
	INTERMITTENT	°C (°F)	82 (180)	82 (180)	82 (180)
FLAME SPREAD	CAN/ULC S102.2M	-	240	240	240

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

10 | Installation

ISOLOFOAM XHD Series products are easy to handle and install. They can be cut with a utility knife.

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

11 | Maintenance

No maintenance is required after **ISOLOFOAM XHD** 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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