MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION MASTERFORMAT® # 07 21 53 REFLECTIVE INSULATION

# SR.**SILVERCLAD**™

GRAPHITE EXPANDED POLYSTYRENE RIGID INSULATION COMBINED TO A PERFORATED REFLECTIVE MEMBRANE

The SR.Silverclad<sup>™</sup> boards manufactured by Styro Rail Inc. are composed of type 1 Graphite expanded polystyrene rigid insulation [EPS] laminated to a perforated reflective membrane with a reflectivity rate of 83% on both sides.

# CHARACTERISTICS

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HIGHER INSULATING VALUE PER INCH

CONTINUOUS INSULATION - ELIMINATING THERMAL BRIDGES

ACTS AS A WHEATHER BARRIER WHEN THE JOINTS ARE SEALED

NON VAPOUR BARRIER : THE MICRO PERFORATED Membrane allows the wall to breathe

MEETS CAN/ULC-S701.1 STANDARD





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### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm	[48" x 96"]	27 mm	[1- <sup>1</sup> / <sub>16</sub> "]	R5*
1219 mm x 2743 mm	[48" x 108"]	41 mm	[1-5/8"]	R7.6
Other dimensions available upon request. Square joints.		54 mm	[2-1/8"]	R10

\* In stock

#### **RECOMMENDED USE**

Install **SR.Silverclad™** boards on the exterior surface of framework.

## CERTIFICATION

Warnock Hersey has certified the type 1 expanded polystyrene contained in **SR.Silverclad™** boards in accordance with the CAN/ULC-S701.1 standard. The type 1 expanded polystyrene produced by STYRORAIL<sup>™</sup> is listed in the CCMC Registry of Product Evaluation under CCMC 13276-L.

#### SR.SILVERCLAD<sup>MD</sup>

#### **GRAPHITE EXPANDED POLYSTYRENE RIGID INSULATION** COMBINED TO A PERFORATED REFLECTIVE MEMBRANE

#### **PHYSICAL PROPERTIES**

INSULATING PANEL	
Туре	1
Thermal Resistance Graphite Min. [ASTM C518] Thickness of 25 mm [1"]	<b>RSI 0,83</b> [R4.7]
<b>MVTR Max.</b> [ASTM E96]	<b>300 ng/Pa-s-m</b> ² [5.24 US Perms]
Compressive Strength Min. [ASTM D1621] 10% Deformation	<b>70 kPa</b> [10 PSI]
Flexural Strenght Min. [ASTM C203]	<b>170 kPa</b> [25 PSI]
Water Absorption Max. [ASTM D2842] Volume	4 %
<b>Dimensional Stability Max.</b> [ASTM D2126] Linear Variation	1.5 %
<b>Limiting Oxygen Index Min.</b> [ASTM D2863]	24 %
Density Min. [ASTM C303]	<b>16 kg/m³</b> [1.0 lbs/ft³]
Flame Spread Rating [CAN/ULC S102.2]	240

REFLECTIVE MEMBRANE*		
Thickness [± 5%]		1.1 mil
Elasticity Limit		<b>188 mPa</b> [27 300 PSI]
Friction Coefficient [ASTM D1894] Face to Face		0.4-0.5
<b>Tensile Strength</b> [ASTM D882]	MD**	<b>148 mPa</b> [21 500 PSI]
	CD	<b>314 mPa</b> [45 500 PSI]
Elongation [ASTM D882]	MD**	200 %
	CD	60 %

\* Data provided by the manufacturer. \*\* MD Machine Direction, CD Cross Machine Direction

SR.SILVERCLAD™	
MVTR Max.	<b>101 ng/Pa-s-m²</b>
[ASTM E96]	[1.77 US Perm]

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# **ENVIRONMENTAL DATA**

The expanded polystyrene used in the making of the **SR.Silverclad™** boards are composed of 98% air and 2% plastic material. They are manufactured without HCFC, HFC gases and without HBCD flame retardant.

The STYRORAIL  $\ensuremath{^{\rm TM}}$  products can contribute to LEED credits.

Please send us your LEED Material Declaration Form at **projetleed@styrorail.ca**.

# STORAGE

Store **SR.Silverclad**<sup>™</sup> boards in a dry and ventilated location, protected from the outside elements, ultraviolet rays, open flames or other sources of ignition. Stack boards on pallets of minimum 100 mm [4"] over the ground.

Cover the unwrapped **SR.Silverclad™** boards or if packaging has been damaged with an **opaque** white tarp. An excessive heat accumulation can deform products made with graphite polystyrene.

Do not store the **SR.Silverclad**<sup>™</sup> boards near any reflectives surfaces [ex: glass, metal]. A heat concentration from reflected sunlight can deform products made with graphite polystyrene.

## **INSTALLATION**

Boards must be dry and in good condition before installation.

Avoid the prolonged exposure to sunlight of the **SR.Silverclad™** grey/black surface. Avoid the concentration of sunlight rays from radiation. Cover as soon as possible on hot days and/or during non-windy conditions. An excessive heat accumulation can deform products made with graphite polystyrene.

Refer to the Installation Guide for more information.

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## LIMITATIONS

Expanded polystyrene is combustible. Even if expanded polystyrene contains a flame retardant, limit use of open flame or ignition sources near product. A protective barrier or thermal barrier is required as specified in the appropriate building code.

Expanded polystyrene may be affected by some oil based solvents.

An excessive heat accumulation can deform products made with graphite polystyrene.

# **EXEMPTION OF LIABILITY**

The information herein is based on the present state of our best scientific and practical knowledge. The user is responsible for checking the suitability of products for their intended use. STYRORAIL<sup>™</sup> technical data sheets are updated on a regular basis; it is the user's responsibility to obtain and to confirm the most recent version. Information contained in this data sheet may change without notice.