



Graphite Expanded Polystyrene Rigid Insulation Combined to a Vapor Barrier Reflective Membrane

## TECHNICAL DATA SHEET

MASTERFORMAT® # 07 21 13.13 Foam Board Insulation  
 MASTERFORMAT® # 07 26 13 Above-Grade Vapor Retarders



The **SR.Radiant™+** panels manufactured by Styro Rail™ are composed of type 2 Graphite expanded polystyrene rigid insulation [Neopor® EPS from BASF] laminated to a vapor barrier reflective membrane with a reflectivity rate of 83%.

### ➤ RECOMMENDED USE

Install **SR.Radiant™+** panels on the interior surface of framework.

### ➤ AVAILABLE DIMENSIONS

1219 mm x 2438 mm	[48'' x 96'']	13 mm	[½'']	<b>R2.3</b>
1219 mm x 2477 mm	[48'' x 97-½'']	19 mm	[¾'']	<b>R3.4</b>
Other dimensions available upon request. Square joints.		25 mm	[1'']	<b>R4.5</b>

### + ADVANTAGES

- Higher insulating value per inch
- Maximizes the R-value of the wall by reflection of heat
- Time saving - Combining insulation and vapor barrier installation steps
- Reduces risk of mould within walls

### ➤ CERTIFICATION

Warnock Hersey has certified the type 2 expanded polystyrene contained in **SR.Radiant™+** panels in accordance with the CAN/ULC-S701-11 standard. The type 2 expanded polystyrene produced by Styro Rail™ is listed in the CCMC Registry of Product Evaluation under CCMC 13271-L.



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### ➤ ENVIRONMENTAL DATA

Expanded polystyrene included in **SR.Radiant™+** panels are composed of 98% air and 2% plastic material. They are manufactured without HCFC or HFC gases.

The Styro Rail™ products can contribute to LEED credits for Optimizing Energy Performance, Recycled Content, Regional Materials, Low-Emitting Materials [Adhesives and Sealants], Construction Waste Management and IAQ Management Plan for the Pre-Occupancy Phase.

Please send us your LEED Material Declaration Form at [projetleed@styorail.ca](mailto:projetleed@styorail.ca).

### ➤ STORAGE AND COVERING

Store panels in a dry location, protected from the outside elements, ultraviolet rays, open flames or other sources of ignition. Stack panels on pallets of minimum 100 mm [4"] above the ground. If provided packaging has been damaged during shipping, cover panels with a weather and ultraviolet tarp. Panels must be dry and in good condition before installation.

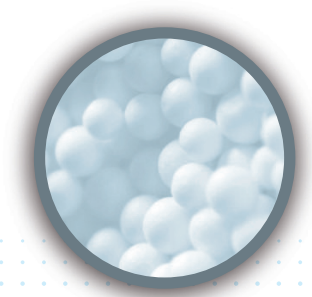
### ➤ LIMITATIONS

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.

### ➤ 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. Styro Rail™ 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.



## TECHNICAL DATA

### PHYSICAL PROPERTIES

Insulating Panel		Reflective Membrane*	
<b>Thermal Resistance Min.</b> [ASTM C518] Thickness of 25 mm [1"]	RSI 0,79 [R4.5]	<b>Thickness</b>	1.1 mil
<b>MVTR Max.</b> [ASTM E96]	200 ng/Pa·s·m <sup>2</sup> [3.5 Perms]	<b>Elasticity Limit</b>	1 919 kg/cm <sup>2</sup> 27 300 in <sup>2</sup> /lbs
<b>Compressive Strength Min.</b> [ASTM D1621] 10% Deformation	110 kPa [16 PSI]	<b>Sealing Temperature</b>	104-121 °C 220-250 °F
<b>Flexural Strength Min.</b> [ASTM C203]	240 kPa [35 PSI]	<b>Friction Coefficient</b> [ASTM D1894] Face to Face	0.4-0.5
<b>Water Absorption Max.</b> [ASTM D2842] Volume	4 %	<b>Tensile Strength</b> [ASTM D882]	<b>MD**</b> 1 512 kg/cm <sup>2</sup> 21 500 lbs/in <sup>2</sup>
<b>Dimensional Stability Max.</b> [ASTM D2126] Linear Variation	1.5 %		<b>CD</b> 3 199 kg/cm <sup>2</sup> 45 500 lbs/in <sup>2</sup>
<b>Limiting Oxygen Index Min.</b> [ASTM D2863]	24 %	<b>Elongation</b> [ASTM D882]	<b>MD**</b> 200 % <b>CD</b> 60 %
<b>Density Min.</b> [ASTM C303]	20 Kg/m <sup>3</sup> [1.25 lbs/ft <sup>3</sup> ]	<b>Water Vapor Transmission Rate</b> [ASTM F1249]	0.009 gms/100in <sup>2</sup> /24h 0.000008 US Perm
		<b>Oxygen Transfer Rate</b> [ASTM F2622]	2.0 cc/100in <sup>2</sup> /24h

\* Data provided by the manufacturer.

\*\* MD Machine Direction, CD Cross Machine Direction



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