MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION
MASTERFORMAT® # 07 26 16 BELOW-GRADE VAPOR RETARDERS

SR.RADIANT™

EXPANDED POLYSTYRENE RIGID INSULATION COMBINED TO A VAPOR BARRIER REFLECTIVE MEMBRANE

The SR.Radiant™ boards manufactured by Styro Rail Inc. are composed of type 1 expanded polystyrene [EPS] rigid insulation laminated to a vapor barrier reflective membrane with a reflectivity rate of 95%.

CHARACTERISTICS

- 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
- REDUCES THE RISK OF MOISTURE CONDENSATION ON THE COLD PART OF THE CONCRETE
- MEETS CAN/ULC-S701-11 STANDARD

STYRORAIL

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AVAILABLE DIMENSIONS

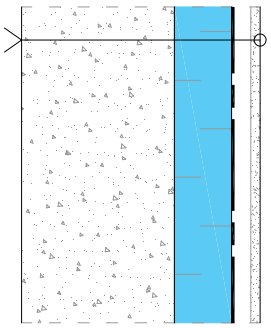
1219 mm x 2438 mm	[48" x 96"]	**51 mm**	[2"]	R13.0*†
1219 mm x 2540 mm	[48" x 100"]	**79 mm**	[3-1/8"]	R17.2*†
1219 mm x 2743 mm	[48" x 108"]			

Two side ship lap joints.

* In stock

† Effective R-Value based on the typical wall assembly described below. Test according to ASTM C1363.

EFFECTIVE R-VALUE ACCORDING TO TYPICAL WALL ASSEMBLY



Foundation Wall

- 200mm [8"] Concrete wall with normal density aggregates
- **SR.Radiant™** board: Vapor barrier reflective membrane + 76mm [3-1/8"] type 1 expanded polystyrene
- 25mm x 76mm [1"X3"] @ 600mm [24"] c/c Furring strips
- 12.7mm [1/2"] Gypsum
- Interior air film

RECOMMENDED USE

Install **SR.Radiant™** boards on the interior surface of foundation walls, the reflective surface towards an enclosed air space with furring strips.

CERTIFICATION

Warnock Hersey has certified the type 1 expanded polystyrene contained in **SR.Radiant™** boards in accordance with the CAN/ULC-S701-11 standard. The type 1 expanded polystyrene produced by STYRORAIL™ is listed in the CCMC Registry of Product Evaluation under CCMC 13276-L.

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PHYSICAL PROPERTIES

INSULATING PANEL	
Type	**1**
Thermal Resistance Min. [ASTM C518] Thickness of 25 mm [1"]	**RSI 0,65** [R3.7]
MVTR Max. [ASTM E96]	**300 ng/Pa•s•m²** [5.24 US Perms]
Compressive Strength Min. [ASTM D1621] 10% Deformation	**70 kPa** [10 PSI]
Flexural Strength Min. [ASTM C203]	**170 kPa** [25 PSI]
Water Absorption Max. [ASTM D2842] Volume	**6 %**
Dimensional Stability Max. [ASTM D2126] Linear Variation	**1.5 %**
Limiting Oxygen Index Min. [ASTM D2863]	**24 %**
Density Min. [ASTM C303]	**16 kg/m³** [1.0 lbs/ft³]
Flame Spread Rating [CAN/ULC S102.2]	**145**

REFLECTIVE MEMBRANE*	
Thickness	**6.0-7.0 mil**
Elongation Min. [ASTM D882]	**0.5 %**
Tensile Strength Min. [ASTM D882]	**50 N/mm²** [7 252 lbs/in²]

* Data provided by the manufacturer.

SR.RADIANT™	
MVTR Max. [ASTM E96]	**60 ng/Pa•s•m²** [1.0 US Perm]

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ENVIRONMENTAL DATA

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

The STYRORAIL™ products can contribute to LEED credits.

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

STORAGE

Store **SR.Radiant™** boards in a dry 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.

INSTALLATION

Boards must be dry and in good condition before installation.

To limit the color loss from UV exposure, cover the installed **SR.Radiant™** boards with an exterior cladding protecting them from ultraviolet rays.

Refer to the *Installation Guide* for more informations.

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. STYRORAIL™ 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.