

SR.RADIANT+™

GRAPHITE EXPANDED POLYSTYRENE RIGID INSULATION
 COMBINED TO A VAPOR BARRIER REFLECTIVE MEMBRANE

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



CHARACTERISTICS

- 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
- MEETS CAN/ULC-S701-11 STANDARD

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AVAILABLE DIMENSIONS

| | | | | |
|--------------------------|-----------------|--------------|--------|-------|
| 1219 mm x 2438 mm | [48" x 96"] | 13 mm | [1/2"] | R2.4 |
| 1219 mm x 2477 mm | [48" x 97-1/2"] | 19 mm | [3/4"] | R3.6* |
| | | 25 mm | [1"] | R4.8* |

Other dimensions available upon request. Square joints.

* In stock

RECOMMENDED USE

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

CERTIFICATION

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

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PHYSICAL PROPERTIES

| INSULATING PANEL | |
|--|----------------------------------|
| Type | 2 |
| Thermal Resistance Min. Neopor® [ASTM C518] Thickness of 25 mm [1"] | RSI 0,84 [R4.75] |
| MVTR Max. [ASTM E96] | 200 ng/Pa·s·m² [3.5 US Perms] |
| Compressive Strength Min. [ASTM D1621] 10% Deformation | 110 kPa [16 PSI] |
| Flexural Strength Min. [ASTM C203] | 240 kPa [35 PSI] |
| Water Absorption Max. [ASTM D2842] Volume | 4 % |
| Dimensional Stability Max. [ASTM D2126] Linear Variation | 1.5 % |
| Limiting Oxygen Index Min. [ASTM D2863] | 24 % |
| Density Min. [ASTM C303] | 20 kg/m³ [1.2 lbs/ft³] |
| Flame Spread Rating [CAN/ULC S102.2] | 240 |

| REFLECTIVE MEMBRANE* | |
|---|--|
| Thickness [± 5%] | 1.1 mil |
| Elasticity Limit | 188 mPa [27 300 PSI] |
| Sealing Temperature | 104-121 °C [220-250 °F] |
| Friction Coefficient [ASTM D1894] Face to Face | 0.4-0.5 |
| Tensile Strength [ASTM D882] | MD** 148 mPa [21 500 PSI] CD 314 mPa [45 500 PSI] |
| Elongation [ASTM D882] | MD** 200 % CD 60 % |
| Water Vapor Transmission Rate [ASTM F1249] | 0.016 ng/Pa·s·m² [0.00028 US Perm] |
| Oxygen Transfer Rate [ASTM F2622] | 2.0 cc/100 in²/24hr |

* Data provided by the manufacturer.

** MD Machine Direction, CD Cross Machine Direction

| 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.

Cover the unwrapped **SR.Radiant+™** boards or if packaging has been damaged with an **opaque** white tarp. An excessive heat accumulation can deform products made with Neopor®.

Do not store the **SR.Radiant+™** boards near any reflectives surfaces [ex: glass, metal]. A heat concentration from reflected sunlight can deform products made with Neopor®.

NEOPOR® Registered Trademark of BASF.

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.

Avoid the prolonged exposure to sunlight of the **SR.Radiant+™** 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 Neopor®.

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.

An excessive heat accumulation can deform products made with Neopor®.

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.