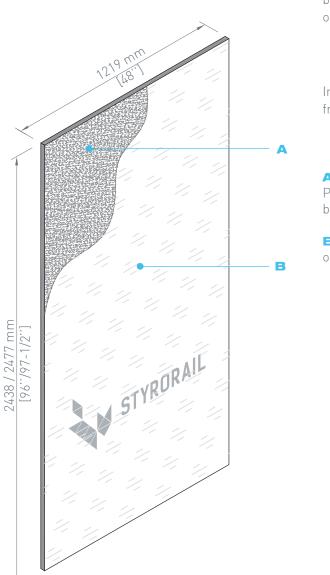




Graphite Expanded Polystyrene Rigid Insulation Combined to a Vapor Barrier Reflective Membrane

# INSTALLATION GUIDE



The **SR.Radiant**<sup>™</sup>+ panels manufacured by Styro Rail<sup>™</sup> are composed of type 1 Graphite expanded polystyrene rigid insulation [Neopor<sup>®</sup> 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.

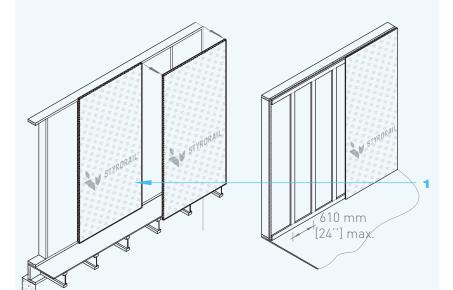
# > PANEL COMPOSITION

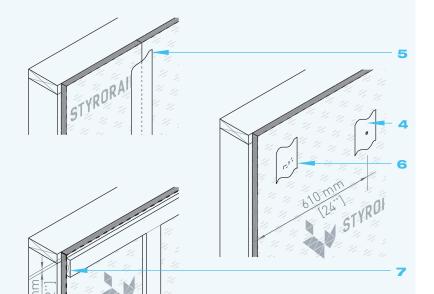
▲ Type 1 Graphite [Neopor® par BASF] Expanded Polystyrene Rigid Panel Insulation [EPS] manufactured by Styro Rail™

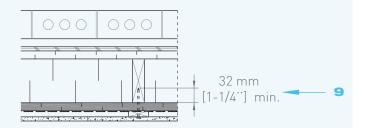
**B** Reflective vapor barrier membrane with a reflectivity rate of 83%



#### **PANEL INSTALLATION**







# SR.RADIANT +

# SENERAL INSTALLATION

**1** Install the panels on the framed wall.

**2** Install vertically on the full height of the wall. Start from the interior corner, from left to right. Butt ends between panels. Install panels continuously and uniformaly.

**3** Temporarily secure with a compatible adhesive<sup>†</sup>. Press firmly on the glued area in order to limit adhesive accumulations that would prevent the complete contact of the panel on the wall.

**4** If nails are used to temporarily secure the panels; fix at 610 mm [24"] from the edges. Cover the nail with a compatible reflective vapor barrier tape<sup>++</sup>.

**5** Seal the joints using a compatible reflective vapor barrier tape<sup>††</sup>.

**6** If the membrane has been perforated during the installation; cover the holes with a compatible reflective vapor barrier tape<sup>++</sup>.

**7** Install the 19 mm x 64 mm [1''x3''] furring strips at the upper and bottom edge of the wall. Install vertically at 610 mm [24''] o.c. in order to create a closed air cavity in front of the reflective membrane.

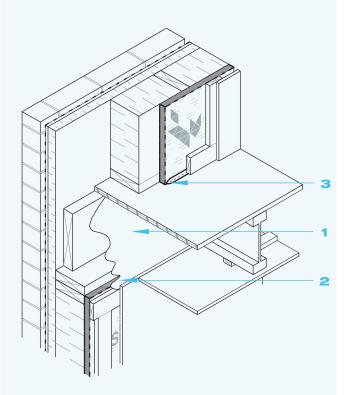
**8** Leave a spacing of approximately 13 mm [1/2"] between the upper edge of the panel and the horizontal furring strip in order to leave a space for the sealing of the wall with spayed urethane.

**9** Use concrete nails ensuring a penetration of 32 mm [1-1/4"] in the framed wall.

**10** Install a protective barrier such as gypsum boards.



## **JUNCTION DETAILS**



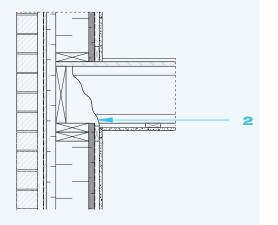


# > FLOOR JUNCTION

**1** Fill the cavity towards the joist header with a vapor barrier sprayed urethane.

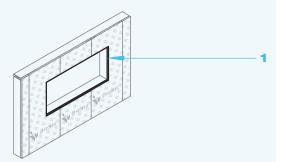
**2** Exceed the urethane over the reflective membrane to ensure the vapor barrier continuity.

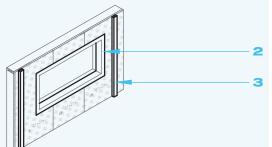
**3** Apply an acoustic sealant<sup>‡</sup> bead at the bottom of the panel.

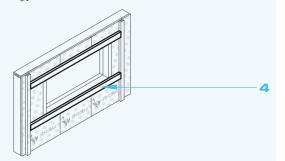


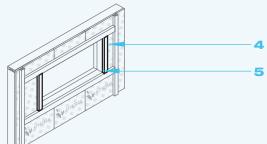


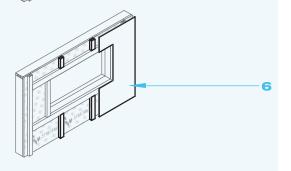
### **JUNCTION DETAILS**













# SR.RADIANT"+

# > OPENING [DOOR AND WINDOW]

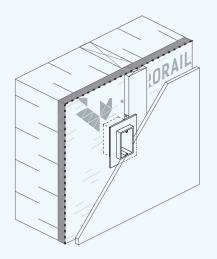
**1** Cut the panels to adjust them to doors and windows gross dimensions, before they are installed. Cut panels flush to the gross opening.

**2** Seal around the opening with strips of vapor barrier or with a compatible self adhesive membrane<sup>‡‡</sup>.

**3** Install the furring strips as per the installation method described in this guide.

- **4** Install furring strips around the gross opening.
- **5** Seal around the opening with compatible sealing foam<sup>+++</sup>.
- 6 Install a protective barrier such as gypsum boards.

### **JUNCTION DETAILS**





# PENETRATION [PIPE, DUCT, ELECTRICAL BOXE, ETC.]

**1** Install electrical boxes in the space located between the insulation and the vapor barrier, next to the furring strips.

**2** Install slim electrical boxes. Embed the electrical box into the insulation. Trace the outside of the box using a knife with retractable blade. Cut the perimeter and remove approx. 25 mm [1''] of insulation where the electrical box will be installed. Use airtight electric boxes.

**3** Screw the electrical box on the furring strip.



# SR.**RADIANT**™+

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# GENERAL ADVICES

# RECOMMENDED PRODUCTS

<sup>+</sup> Adhesive must be compatible with expanded polystyrene. It must not be solvent based. Use *PL®300* adhesive from *Lepage* or equivalent.

<sup>++</sup>The sealing tape must be compatible with the reflective membrane and must be vapor barrier. The tape should ideally be reflective to maximize heat gain by radiation.

<sup>+++</sup> Sealants must be compatible with expanded polystyrene. Use *ADFoam* from *ADFast* polyurethane insulating foam or equivalent.

<sup>‡</sup>The acoustic sealant must be compatible with expanded polystyrene. Use *Tremco* acoustic sealant or equivalent.

<sup>‡‡</sup> The self-adhesive flexible membrane must be air and moisture proof, but permeable to water vapor. It must be installed according to the manufacturer's instructions. The *Blueskin®* SA or WP from *Henry Bakor* and *Hi-tac* primer from *Henry Bakor* are compatible with expanded polystyrene and air-barrier membrane.

## 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.

# EXEMPTION FROM LIABILITY

The information herein is based on the present state of our best scientific and practical knowledge. They are provided to facilitate Styro Rail<sup>™</sup> product's installation and may not apply to all situations. The user is responsible for checking the suitability of products for their intended use. Styro Rail<sup>™</sup> installation guides 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. The drawings and details herein have not been scaled up.



#### Un monde en expansion

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