



Expanded Polystyrene Rigid Insulation combined to an Oriented Structural Board

TECHNICAL DATA SHEET

MASTERFORMAT® # 06 16 13 Insulating Sheathing



The **OSB.Comfort™** boards manufactured by Styro Rail™ are composed of type 2 expanded polystyrene [EPS] rigid insulation laminated to an oriented structural board [OSB]. They comprise perforations for complying with permeability requirements.

➤ RECOMMENDED USE

Install **OSB.Comfort™** boards on the exterior surface of framed walls in order to obtain a continuous thermal envelope, reinforcement against diagonal deformations and to offer support for the fastening of masonry ties or wooden furs for lightweight siding.

➤ AVAILABLE DIMENSIONS

1219 mm x 2438 mm [48'' x 96'']

1219 mm x 2743 mm [48'' x 108'']

+ ADVANTAGES

- Large nailing surface for exterior cladding
- Continuous insulation - elimination of thermal bridges
- Quick wall erection
- Non vapor barrier product
- Breathable perforated panel - factory made perforations to comply with permeability standards
- Combination of the insulation and bracing steps

| | | Regular | Neopor® |
|-------|-------------|------------|-----------------------------|
| 33 mm | [1-5/16''] | R4 | 30 mm [1-3/16''] R4 |
| 40 mm | [1-9/16''] | R5 | 37 mm [1-7/16''] R5 |
| 46 mm | [1-13/16''] | R6 | 43 mm [1-11/16''] R6 |
| 52 mm | [2-1/16''] | R7 | 48 mm [1-7/8''] R7 |
| 59 mm | [2-5/16''] | R8 | 52 mm [2-1/16''] R8 |
| 71 mm | [2-13/16''] | R10 | 65 mm [2-9/16''] R10 |

Other dimensions available upon request. Square joints.

➤ CERTIFICATION

Warnock Hersey has certified the type 2 expanded polystyrene contained in **OSB.Comfort™** 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.

Oriented structural board contained in **OSB.Comfort™** panels complies with CAN/CSA-O325.07 standard. Panels are mark with W24, Exposure 1 and Exterior Type.



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➤ ENVIRONMENTAL DATA

Expanded polystyrene included in **OSB.Comfort™** 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.

➤ 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 panel with a weather and ultraviolet tarp. Panels must be dry and in good condition before installation.

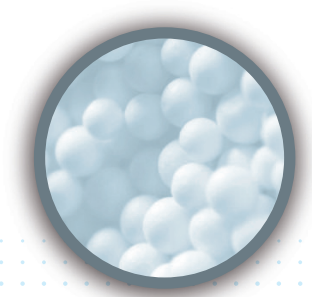
➤ LIMITATIONS

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 FROM 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

| | | | |
|--|---|--|---|
| Thickness | 22 mm - 60 mm [7/8" - 2-3/8"] | Flexural Strength Min. [ASTM C203] | 240 kPa [35 PSI] |
| Thermal Resistance Min. [ASTM C518] Thickness of 25 mm [1"] | RSI 0,70 [type 2] [R4.0] | Water Absorption Max. [ASTM D2842] Volume | 4 % |
| | RSI 0,79 [Neopor®] [R4.5] | Dimensional Stability Max. [ASTM D2126] Linear Variation | 1.5 % |
| MVTR Max. [ASTM E96] | 200 ng/Pa·s·m ² [3.5 Perms] | Limiting Oxygen Index Min. [ASTM D2863] | 24 % |
| Compressive Strength Min. [ASTM D1621] 10% Deformation | 110 kPa [16 PSI] | Density Min. [ASTM C303] | 20 Kg/m ³ [1.25 lbs/ft ³] |

Oriented Structural Board*

| | | | |
|---|--|---|---|
| Thickness | 11 mm [7/16"] | Uniform Loads - Ultimate load [CAN/CSA-0325, PS2] Roof 600 mm [24"] o.c. ** Floor 400 mm [16"] o.c. ** | 7.2 kPa [1.04 PSI] 15.8 kPa [2.29 PSI] |
| Tolerances [CAN/CSA-0325, PS2] Length and width Thickness | ± 1.6 mm [1/16"] ± 0.80 mm [1/32"] | Wall racking [ASTM E72] Deflection** Ultimate load** | 5.1 mm [0.2"] 6.6 kN/m [452 lbs/ft] |
| Squareness Max. [CAN/CSA-0325, PS2] | 1.3 mm/m.l. [1/64"/li.ft] | Fastener holding - Lateral load [PS2] Ultimate load** | 778 N [175 lbs] |
| Straightness Max. - of panel edge [CAN/CSA-0325, PS2] | 1.6 mm [1/16"] | Fastener holding - Withdrawal load [ASTM D-1961] Ultimate load** | 89 N [20 lbs] |
| Linear expansion [ASTM D1037] Parallel and perpendicular | ≤ 0.5 % | Dimensional stability [CAN/CSA-0325, PS2] | 0.5 % |
| Concentrated Loads [ASTM E661] Deflection under 0.89 kN [200 lbs]** Ultimate load** | 12.7 mm [1/2"] 1.78 kN [400 lbs] | Bond classification [CAN/CSA-0325, PS2] | Exposure 1*** |
| Uniform Loads - Deflection [CAN/CSA-0325, PS2] Roof 600 mm [24"] o.c. ** Floor 400 mm [16"] o.c. ** | 2.5 mm @ 1.68 kPa [0.098" @ 0.24 PSI] 1.1 mm @ 4.79 kPa [0.043" @ 0.69 PSI] | <p>* Data provided by APA - The Engineered Wood Association ** Test Value - Not for Design Use *** Meeting National Building Code, article 9.3.2.1 Design Capacities for Engineers and Architects can be found in the latest edition of Engineering Design in Wood CSA-086-14, Table 9.3C.</p> | |

OSB.Comfort™

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|---------------------------------|--|
| MVTR Min. [ASTM E96M] | 60 ng/Pa·s·m ² [1.0 Perms] |
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Expand your world

Styro Rail Inc. 65 Route 105, La Pêche, Québec J0X 3G0
T 1 819 643-4456 1 888 332-3456 F 819 459-1621

