SR.P350™

HIGH COMPRESSIVE STRENGTH EXPANDED POLYSTYRENE RIGID INSULATION

The SR.P350™ panels manufactured by Styro Rail Inc. are composed of type 3 expanded polystyrene [EPS] rigid insulation and offers a compressive strength of 210 kPa [30 PSI].

Available option:
SR.P350G™ panels manufactured with graphite polystyrene.

CHARACTERISTICS

- COMPRESSIVE STRENGTH OF **210 kPA** [30 PSI]
- **SR.P350™:** INSULATING VALUE OF RSI 0.76/25 MM [R-VALUE 4.3/INCH]
- **SR.P350G™:** SUPERIOR INSULATING VALUE WITH GRAPHITE : RSI 0.85/25 MM [R-VALUE 4.8/INCH]
- MEETS CURRENT BUILDING CODE REQUIREMENTS
- CLOSED CELL- MOISTURE RESISTANT
- NON VAPOUR BARRIER
- PERMANENT R-VALUE – DOES NOT DIMINISH WITH TIME
- MEETS CAN/ULC-S701.1 STANDARD

STYRORAIL

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AVAILABLE DIMENSIONS

610 mm x 2438 mm	[24" x 96"]
1219 mm x 2438 mm	[48" x 96"]
1219 mm x 2743 mm	[48" x 108"]

Other dimensions available upon request. Square joints by default. Panels of 25 mm [1"]: ship lap joints available on two sides. Panels of 38 mm [1-½"] or more: ship lap joints available on two or four sides; G-Lock™ system available on two or four sides for 1219 mm [48"] wide panels.

		SR.P350™ REGULAR	SR.P350G™ GRAPHITE
25 mm	[1"]	R4.3	R4.8
35 mm	[1-3/8"]	R5.9	R6.6
38 mm	[1-½"]	R6.5	R7.2
44 mm	[1-¾"]	R7.5	R8.4
51 mm	[2"]	R8.6*	R9.6
59 mm	[2-5/16"]	R10.0*	R11.1

* In stock

RECOMMENDED USE

Install **SR.P350™** panels when applications require a superior compressive strength insulating material. Ideal to insulate concrete slab of commercial garages. Can also be used as insulating material underneath residential concrete slabs. Also used to insulate underneath above ground pools, concrete sidewalks as well as the parking spaces and the drainage pipes under the parking spaces of small residential buildings.

Install **SR.P350G™** panels when a higher insulation value is needed for a specified thickness.

CERTIFICATION

Warnock Hersey has certified the type 3 expanded polystyrene contained in **SR.P350™** and **SR.P350G™** panels in accordance with the CAN/ULC-S701.1 standard. The type 3 expanded polystyrene produced by STYRORAIL™ is listed in the CCMC Registry of Product Evaluation under CCMC 13277-L.

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PHYSICAL PROPERTIES

INSULATING PANEL	SR.P100™	SR.P200™	SR.P300™	SR.P350™	SR.P400™	SR.P600™
Type	1	2	3	3	3	3
Thermal Resistance Min. Regular [ASTM C518] Thickness of 25 mm [1"]	RSI 0,65 [R3.7]	RSI 0,70 [R4.0]	RSI 0,74 [R4.2]	RSI 0,76 [R4.3]	RSI 0,76 [R4.3]	RSI 0,81 [R4.6]
Thermal Resistance Min. Graphite [ASTM C518] Thickness of 25 mm [1"]	RSI 0,83 [R4.7]	RSI 0,84 [R4.75]	RSI 0,85 [R4.8]	RSI 0,85 [R4.8]	RSI 0,85 [R4.8]	N/A
MVTR Max. [ASTM E96]	300 ng/Pa•s•m^2 [5.24 US Perms]	200 ng/Pa•s•m^2 [3.5 US Perms]	130 ng/Pa•s•m^2 [2.27 US Perms]	130 ng/Pa•s•m^2 [2.27 US Perms]	130 ng/Pa•s•m^2 [2.27 US Perms]	130 ng/Pa•s•m^2 [2.27 US Perms]
Compressive Strength Min. [ASTM D1621] 10% Deformation	70 kPa [10 PSI]	110 kPa [16 PSI]	140 kPa [20 PSI]	210 kPa [30 PSI]	276 kPa [40 PSI]	414 kPa [60 PSI]
Flexural Strength Min. [ASTM C203]	170 kPa [25 PSI]	240 kPa [35 PSI]	300 kPa [44 PSI]	345 kPa [50 PSI]	414 kPa [60 PSI]	517 kPa [75 PSI]
Water Absorption Max. [ASTM D2842] Volume	4 %	3 %	2 %	1.8 %	1.5 %	0.7 %
Dimensional Stability Max. [ASTM D2126] Linear Variation	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %	1.5 %
Limiting Oxygen Index Min. [ASTM D2863]	24 %	24 %	24 %	24 %	24 %	24 %
Density Min. [ASTM C303]	16 kg/m^3 [1.0 lbs/ft^3]	20 kg/m^3 [1.2 lbs/ft^3]	25 kg/m^3 [1.5 lbs/ft^3]	29 kg/m^3 [1.8 lbs/ft^3]	39 kg/m^3 [2.4 lbs/ft^3]	53 kg/m^3 [3.3 lbs/ft^3]
Flame Spread Rating Regular [CAN/ULC S102.2]	145	145	145	145	145	145
Flame Spread Rating Graphite [CAN/ULC S102.2]	240	240	240	240	240	N/A

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ENVIRONMENTAL DATA

The expanded polystyrene used in the making of the **SR.P350™** and **SR.P350G™** panels 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.P350™** and **SR.P350G™** panels in a dry and ventilated location, protected from the outside elements, ultraviolet rays, open flames or other sources of ignition. Stack panels on pallets of minimum 100 mm [4"] over the ground.

Pay special attention to the storage of the **SR.P350G™** panels made with graphite polystyrene.

Cover the unwrapped **SR.P350G™** panels or if packaging has been damaged with an **opaque** white tarp. An excessive heat accumulation can deform products made with graphite polystyrene.

Do not store the **SR.P350G™** panels near any reflectives surfaces [ex: glass, metal]. A heat concentration from reflected sunlight can deform products made with graphite polystyrene.

INSTALLATION

Panels must be dry and in good condition before installation.

Avoid the prolonged exposure to sunlight of the **SR.P350G™** grey/black surface made with graphite polystyrene. 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 graphite polystyrene.

Refer to the *Installation Guide* for more information.

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 graphite polystyrene.

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.