# SR.**G-FLEX**™

#### FLEXIBLE EXPANDED POLYSTYRENE INSULATION

The flexible SR.G-Flex<sup>™</sup> insulating boards manufactured by Styro Rail Inc. are composed of type 2 or type 3 expanded polystyrene laminated on each side by a polypropylene membrane.







| SR.G-FLEX™                                |              | FLEXIBLE | FLEXIBLE EXPANDED POLYSTYRENE INSULATION |       |       |        |
|---|--------------|----------|--|-------|-------|--------|
| AVAILABLE DIMEN                           | SIONS        |          |  | 200   | 300   | 350    |
| 1219 mm x 2438 mm                         | [48" x 96"]  | 30 mm    | [1-³/16"]                                | 200   | R5.0  | R5.0   |
| 1219 mm x 2743 mm                         | [48" x 108"] | 32 mm    | [1-1/4"]                                 | R5.0* | 1\J.U | 11.0.0 |
| 1219 IIIIII X Z/43 IIIIII                 | [40 X IU8 ]  | - 32 mm  |  | КЭ.U  |       |        |
| G-Lock <sup>™</sup> system on four sides. |              | 46 mm    | [1- <sup>13</sup> / <sub>16</sub> "]     |       | R7.5  | R7.8   |
|   |              | 48 mm    | [1-7/8"]                                 | R7.5* |       |        |
|   |              | 59 mm    | [2-5/16"]                                |       |       | R10    |
|   |              | 60 mm    | [2-3/8"]                                 |       | R10.0 |        |
|   |              | 64 mm    | [2-1/2"]                                 | R10.0 |       |        |

### **RECOMMENDED USE**

Install the SR.G-Flex<sup>™</sup> boards underneath the finished basement concrete slab and of residential and commercial garage concrete slabs. Ideal when the backfill material is uneven – the boards stay interconnected to one another through the G-Lock<sup>™</sup> ship lap system and the flexibility of the board.

#### **CERTIFICATION**

Warnock Hersey has certified the type 2 and type 3 expanded polystyrene contained in SR.G-Flex™ boards in accordance with the CAN/ULC-S701.1 standard. The type 2 and type 3 expanded polystyrene produced by STYRORAIL™ is listed in the CCMC Registry of Product Evaluation under CCMC 13271-L and CCMC 13277-L.

### **ENVIRONMENTAL DATA**

The expanded polystyrene used in the making of the SR.G-Flex<sup>™</sup> boards are composed of 98% air and 2% plastic material. They are manufactured without HCFC, HFC gases and without HBCD flame retardant.

The STYRORAIL  $^{\text{TM}}$  products can contribute to LEED credits.

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

## **STORAGE**

Store SR.G-Flex<sup>™</sup> boards in a dry and ventilated 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.

\* In stock

### **INSTALLATION**

Boards must be dry and in good condition before installation.

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.

#### **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.

## SR.G-FLEX™

# FLEXIBLE EXPANDED POLYSTYRENE INSULATION

## **PHYSICAL PROPERTIES**

| INSULATING BOARD  | 200   | 300                                   | 350                                   |  |
|---|---|---------------------------------------|---------------------------------------|--|
| Туре  | 2   | 3                                     | 3                                     |  |
| Thermal Resistance Min.<br>[ASTM C518]<br>Thickness of 25 mm [1"]     | <b>RSI 0,70</b><br>[R4.0]                           | <b>RSI 0,74</b><br>[R4.2]             | <b>RSI 0,76</b> [R4.3]                |  |
| MVTR Max.<br>[ASTM E96]   | <b>200 ng/Pa-s-m</b> <sup>2</sup><br>[3.5 US Perms] | <b>130 ng/Pa-s-m²</b> [2.27 US Perms] | <b>130 ng/Pa-s-m²</b> [2.27 US Perms] |  |
| Compressive Strength Min.<br>[ASTM D1621]<br>10% Deformation          | <b>110 kPa</b><br>[16 PSI]                          | <b>140 kPa</b><br>[20 PSI]            | <b>210 kPa</b><br>[30 PSI]            |  |
| Flexural Strength Min.<br>[ASTM C203]                                 | <b>240 kPa</b><br>[35 PSI]                          | <b>300 kPa</b><br>[44 PSI]            | <b>345 kPa</b><br>[50 PSI]            |  |
| Water Absorption Max.<br>[ASTM D2842] Volume                          | 2 %   | 2 %                                   | 1.8 %                                 |  |
| <b>Dimensional Stability Max.</b><br>[ASTM D2126]<br>Linear Variation | 1.5 %   | 1.5 %                                 | 1.5 %                                 |  |
| <b>Limiting Oxygen Index Min.</b><br>[ASTM D2863]                     | 24 %  | 24 %                                  | 24 %                                  |  |
| <b>Density Min.</b><br>[ASTM C303]                                    | <b>20 kg/m³</b><br>[1.2 lbs/ft³]                    | <b>25 kg/m³</b><br>[1.5 lbs/ft³]      | <b>29 kg/m³</b><br>[1.8 lbs/ft³]      |  |
| Flame Spread Rating<br>[CAN/ULC S102.2]                               | 145   | 145                                   | 145                                   |  |

| POLYETHYLENE VAPOR BARRIER*                       |      |   |  |  |
|---|------|---|--|--|
| Tensile Strength<br>[ASTM D882]                   | MD** | <b>2109 kg/cm³</b><br>[30 000 lbs/in²]        |  |  |
|   | CD   | <b>2109 kg/cm³</b><br>[30 000 lbs/in²]        |  |  |
| Elongation<br>[ASTM D882]                         | MD   | 85%   |  |  |
|   | CD   | 115%  |  |  |
| Elasticity Limit                                  |      | 30 000 in²/lbs                                |  |  |
| Water Vapor<br>Transmission Rate<br>[ASTM F1249]  |      | <b>0.06 gms/100in²/24h</b><br>[0.013 US Perm] |  |  |
| Sealing Temperature                               |      | <b>220-250°F</b><br>[104-121°C]               |  |  |
| Friction Coefficient<br>[ASTM D1894] Face to face |      | 0.4-0.5                                       |  |  |
| Thickness<br>± 5%                                 |      | 1.0 mil                                       |  |  |

<sup>\*</sup> Data provided by the manufacturer.
\*\* MD Machine Direction, CD Cross Machine Direction

| SR.G-FLEX™ |                       |
|------------|-----------------------|
| MVTR Max.  | <b>60 ng/Pa-s-m</b> ² |
| [ASTM E96] | [1.0 US Perms]        |