Sarnatherm® XPS

SARNATHERM XPS IS A RIGID EXTRUDED POLYSTYRENE INSULATION BOARD

PRODUCT DESCRIPTION

Sarnatherm® XPS is a rigid extruded polystyrene insulation board that can be used in either a Sika roofing or waterproofing application.

USES

Wherever insulation is required within a conventional roof assembly or waterproofing application.

Areas of Application

▪ New Roofs
▪ Recover Roofs
▪ Mechanically Attached Systems
▪ Adhered Systems
▪ Waterproofing Systems

CHARACTERISTICS / ADVANTAGES

▪ Low water absorption
▪ Available in various sizes

APPROVALS / STANDARDS

▪ ASTM C 578, Type VI, VII, V
▪ CAN/ULC S701, Type 4
PRODUCT INFORMATION

Chemical Base
Polystyrene foam core with a smooth skin surface on the face and back surfaces

Packaging
- Various Thicknesses
- Sarnatherm per bundle depends on thickness

Shelf Life
N/A

Storage Conditions
Factory-applied packaging is intended only for protection during transit. When stored outdoors or on the job site, the insulation should be stacked on pallets at least 4" (102 mm) above ground level and completely covered with a weatherproof covering such as a tarpaulin. The temporary factory-applied packaging should be slit or removed to prevent accumulation of condensation. Refer to PIMA Technical Bulletin 109: Storage and Handling Recommendations for Polyiso Roof Insulation.

Thickness

<table>
<thead>
<tr>
<th>Thickness</th>
<th>R-Value</th>
<th>C-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0&quot; (25 mm)</td>
<td>5.0</td>
<td>0.200</td>
</tr>
<tr>
<td>1.5&quot; (38 mm)</td>
<td>7.5</td>
<td>0.133</td>
</tr>
<tr>
<td>2.0&quot; (51 mm)</td>
<td>10.0</td>
<td>0.100</td>
</tr>
<tr>
<td>2.5&quot; (64 mm)</td>
<td>12.5</td>
<td>0.080</td>
</tr>
<tr>
<td>3.0&quot; (76 mm)</td>
<td>15.0</td>
<td>0.067</td>
</tr>
<tr>
<td>4.0&quot; (102 mm)</td>
<td>20.0</td>
<td>0.050</td>
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</tbody>
</table>

Not all available thicknesses are listed.

TECHNICAL INFORMATION

Compressive Strength

<table>
<thead>
<tr>
<th></th>
<th>400</th>
<th>600</th>
<th>1000</th>
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</thead>
<tbody>
<tr>
<td>40 psi</td>
<td>275 kPa</td>
<td>415 kPa</td>
<td>690 kPa</td>
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</table>
| *Minimum values at yield or 5 % whichever occurs first.

Flexural Strength

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<tr>
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<th>400</th>
<th>600</th>
<th>1000</th>
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</thead>
<tbody>
<tr>
<td>60 psi</td>
<td>480 kpa</td>
<td>585 kpa</td>
<td>690 kpa</td>
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</tbody>
</table>
| *Minimum values

Dimensional Stability

Coefficient of Linear Thermal Expansion
\( \text{in/(in}\cdot\text{°F}) \text{ (mm/(m}\cdot\text{°C})} \)

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<thead>
<tr>
<th></th>
<th>400</th>
<th>600</th>
<th>1000</th>
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<tbody>
<tr>
<td>3.5 x 10^{-5}</td>
<td>(6.3 x 10^{-2})</td>
<td>3.5 x 10^{-5}</td>
<td>(6.3 x 10^{-2})</td>
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<tr>
<td></td>
<td>3.5 x 10^{-5}</td>
<td>(6.3 x 10^{-2})</td>
<td>3.5 x 10^{-5}</td>
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Reaction to Fire

Flame Spread

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<tr>
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<th>400</th>
<th>600</th>
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<tbody>
<tr>
<td>5</td>
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</table>

Smoke Developed

<table>
<thead>
<tr>
<th></th>
<th>400</th>
<th>600</th>
<th>1000</th>
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</thead>
<tbody>
<tr>
<td>165</td>
<td>165</td>
<td>165</td>
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</table>

*These values are not intended to reflect hazards presented by this or any other material under actual fire conditions.

Permeability to Water Vapor

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<tr>
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<th>400</th>
<th>600</th>
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<tbody>
<tr>
<td>0.8 perms (35 ng/(Pa·s·m²))</td>
<td>0.8 perms (35 ng/(Pa·s·m²))</td>
<td>0.8 perms (35 ng/(Pa·s·m²))</td>
<td></td>
</tr>
</tbody>
</table>

*Water vapor permeance varies with product type and thickness. Values are based on the desiccant method and they apply to insulation 1" (25 mm) or greater in thickness.
**APPLICATION INSTRUCTIONS**

Sarnatherm® XPS is installed either under or over the Sika roofing/waterproofing membrane depending on the system design. Overburden is utilized to hold the insulation in place in a waterproofing application. Polystyrene should not come in contact with PVC. Always place a separation layer such as Sarnafelt NWP between the Sarnatherm® XPS and the membrane in both roofing and waterproofing applications. During installation in hot, sunny weather, protect the insulation with a white covering to prevent excessive heat build-up and potential warping.

**MAINTENANCE**

Standard maintenance of Sarnafil® or Sikaplan® systems should include regular inspection of flashings, drains and termination sealants at least twice a year and after each storm.

**AVAILABILITY/WARRANTY**

**Availability**

From Sika Corporation – Roofing Authorized Applicators for use within Sarnafil or Sikaplan systems.

**Warranty**

Upon successful completion of the installed roof by the Sika Authorized Applicator, Sika Corporation will provide a warranty to the Building Owner via the Sika Authorized Applicator.

**BASIS OF PRODUCT DATA**

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

**OTHER RESTRICTIONS**

See Legal Disclaimer.

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**ENVIRONMENTAL, HEALTH AND SAFETY**

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.
LEGAL DISCLAIMER

• KEEP CONTAINER TIGHTLY CLOSED
• KEEP OUT OF REACH OF CHILDREN
• NOT FOR INTERNAL CONSUMPTION
• FOR INDUSTRIAL USE ONLY
• FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA’s Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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