

PRODUCT DATA SHEET

Sarnatherm® XPS

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 XII, X, XIII, IV, 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	<ul style="list-style-type: none"> 2 ft x 8 ft (0.6 m x 2.4 m) 4 ft x 8 ft (1.2 m x 2.4 m) Various Thicknesses 		
Shelf Life	N/A		
Storage Conditions	<p>When stored outdoors, the insulation should be stacked on pallets at least 4" (102 mm) above the surface level and protected from exposure to direct sunlight and weather using an opaque, light-colored tarpaulin. Do not use a dark colored tarpaulin. The factory applied packaging is intended only for protection during transit and should only be slit enough to prevent accumulation of condensation then removed prior to immediate use. Insulation that becomes wet or damaged should be removed and replaced with dry insulation</p>		
Thickness	Thickness	R-Value	C-Value
	1.0" (25 mm)	5.0	0.200
	1.5" (38 mm)	7.5	0.133
	2.0" (51 mm)	10.0	0.100
	2.5" (64 mm)	12.5	0.080
	3.0" (76 mm)	15.0	0.067
	4.0" (102 mm)	20.0	0.050
Not all available thicknesses are listed.			

TECHNICAL INFORMATION

Compressive Strength	Type VI 40.0 psi (276 kPa)	Type VII 60.0 psi (414 kPa)	Type V 100 psi (690 kPa)	(ASTM D-1621)
Minimum values at yield or 10 % deformation, whichever occurs first.				
Flexural Strength	Type VI 60.0 psi (414 kPa)	Type VII 75.0 psi (517 kPa)	Type V 100 psi (690 kPa)	(ASTM C-203)
Minimum values				
Dimensional Stability	Type VI <2%	Type VII <2%	Type V <2%	(ASTM D-2126)
Reaction to Fire	Type VI Oxygen Index 24.0	Type VII Oxygen Index 24.0	Type V Oxygen Index 24.0	(ASTM D-2863)
% by volume				
	Type VI Flame spread 5	Type VII Flame spread 5	Type V Flame spread 5	(ASTM E-84)
	Type VI Smoke Developed 165	Type VII Smoke Developed 165	Type V Smoke Developed 165	(ASTM E-84)
*These values are not intended to reflect hazards presented by this or any other material under actual fire conditions				
Permeability to Water Vapor	Type VI < 1.5 perm	Type VII < 1.5 perm	Type V < 1.5 perm	(ASTM E-96)

Service Temperature	Maximum Use Temperature		
	Type VI	Type VII	Type V
	165°F (74°C)	165°F (74°C)	165°F (74°C)
Water Absorption	Type VI	Type VII	Type V
	<0.3	<0.3	<0.3
	(ASTM C-272)		
	% by volume, maximum values		
Thermal resistance	Type VI	Type VII	Type V
	5.0	5.0	5.0
	(ASTM C-177)		

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.

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 in compliance with Sika requirements, Sika Corporation will provide a warranty to the Building Owner via the Sika Authorized Applicator.

LIMITATIONS

- Care must be taken whenever solvents are present near polystyrene insulation.
- Do not use solvent based adhesives with systems incorporating polystyrene insulation for roof membrane attachment.
- Foam plastic insulation will ignite if exposed to fire of sufficient heat and intensity. Protect foam insulation from exposure to open flame or other ignition sources during shipment, storage, and installation.
- Polystyrene insulations should not be used in direct contact with chimneys, heater vents, steam pipes, or other surfaces where temperatures exceed 150°F (65°C).
- Bareback membranes cannot be installed in contact with polystyrene.
- Polystyrene insulations should have additional protection in addition to normally specified cover boards in areas where dark membranes are used and where "reflected solar energy" is expected to be present.
- Areas adjacent to higher walls or other structures with reflective cladding should be considered for additional heat protection. For example, areas near metal or glass cladding, or near, or in between large groupings of

mechanical equipment, or near higher reflective parapets, should be considered for additional heat protection. Additional heat protection for such roof areas include covering roofing membrane with Sarnafil PVC Protection Layer and then applying pavers or ballast to the affected area.

- Polystyrene insulation is susceptible to degradation when exposed to high temperatures or when exposed to solvents or solvent fumes. The typical maximum service temperature for polystyrene insulations is 165°F (74°C). Should ambient or surface temperature be expected to exceed this value, please consult the manufacturer of the insulation.

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.

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.

If the compressive strength of the EPS board is less than 20 psi, then a gypsum cover board must be installed over the board for load distribution and resistance purposes.

OTHER RESTRICTIONS

See Legal Disclaimer.

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.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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Product Data Sheet
Sarnatherm® XPS
February 2025, Version 04.02
020935052000005010

SarnathermXPS-en-US-(02-2025)-4-2.pdf

