

PRODUCT DATA SHEET

Sarnatherm[®]-21 XPS

RIGID EXTRUDED POLYSTYRENE THERMAL INSULATION BOARD

DESCRIPTION

Sarnatherm[®]-21 XPS is a rigid extruded polystyrene thermal insulation board that can be used in either a Sika[®] Roofing or Waterproofing application. Its unique properties of high compressive strength and low water absorption makes it an ideal insulating material for foundations, walls, roofs and floors.

USES

Wherever insulation is required within a conventional roof assembly, wall assembly or waterproofing application namely under the following :

- Thermal insulation for flat roof, floor or wall system
 - Underdeck insulation
 - Floor insulation
 - Cavity walls insulation
 - External wall insulation
 - Overdeck insulation
- Protection board before backfilling in waterproofing applications

Areas of Application

- New roofs
- Refurbishment of roofs
- Mechanically attached roofing systems
- Adhered roofing systems
- Waterproofing systems
- Green roof systems
- Wall systems
- Cold chambers or freezers

PRODUCT INFORMATION

Chemical Base

Rigid polystyrene foam core with a smooth skin surface on the face and back surfaces. 100% closed cell structure.

Packaging

The standard sheet size for the Sarnatherm[®]-21 XPS is 1250 mm x 600 mm.

The sheets are packed in plastic cover to avoid any damage during transit or at the site. Care should be taken while handling / transporting to avoid puncturing and damaging the edges and surface of the Sarnatherm®-21 XPS.

Thickness(mm)	Boards/bag	m ² /bag	Edge Profile
25	18	13.5	Square
50	8	6.0	Shiplap/Square
75	6	4.5	Shiplap/Square
100	5	3.75	Shiplap/Square

Shelf Life	The product does not expire if stored as per storage conditions mentioned		
Storage Conditions	The product must be stored properly in original, unopened and undamaged sealed packaging, in a shaded area on flat surface or wooden pallets neatly covered by a thick fabric and tied securely in a manner that will minimize exposure to sunlight and UV.		
Density	> 34 kg/m ³		(ASTM D 1622)
Dimensions	1250 mm x 600 mm (sheet)		
Compressive Strength	Thickness	Compressive strength @ 10% deflection	(ASTM D 1621)
	25mm	≥ 240 kPa	
	50 mm / 75 mm / 100 mm	≥ 350 kPa	
Dimensional Stability	< 2 %		(ASTM D 2126)
Reaction to Fire	Class B2		(DIN 4102 Part 1)
Thermal Conductivity	≤ 0.0289 W/m·K at +23.9 °C (mean temperature, 90 days)		(ASTM C 518)
Permeability to Water Vapour	~60 ng/Pa·s·m ²		(ASTM E 96)
	Water vapor permeance varies with product type and thickness. Values are based on the desiccant method and apply to insulation 25 mm.		
Water Absorption	≤ 0.3 % by volume (under total immersion)		(ASTM C 272)
Service Temperature	-50 °C min. / +75 °C max.		
Reaction to Fire	Class A		(ASTM E 84)
System Structure	Ancillary/Complementary products: <ul style="list-style-type: none"> ▪ S-Felt separation layer ▪ Sika® Sarnafil® membranes and system components ▪ Sikalastic® Liquid applied membranes ▪ SikaBit® and Sika® WP Shield bituminous membranes 		

APPLICATION INSTRUCTIONS

Sarnatherm®-21 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 membranes. Always place a S-Felt separation layer between the Sarnatherm®-21 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.

For advise on other applications, please consult Sika®

Technical Service team.

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.

LIMITATIONS

Excessive exposure to sunlight, UV and other sources of heat will result in considerable deterioration of the product and reduce its thermal and physical properties.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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May 2020, Version 01.01
020935052000221701