

## PRODUCT DATA SHEET

# Sikatherm® XPS 300 RZ

Rigid extruded polystyrene insulation board with self-extinguishing properties



### DESCRIPTION

Sikatherm® XPS 300 RZ is a rigid extruded polystyrene insulation board with self-extinguishing properties that can be used as part of Sika roofing or waterproofing system.

### USES

Sikatherm® XPS 300 RZ is used in all applications where thermal insulation is required within a conventional roof assembly or waterproofing system:

- New roofs
- Renovation of existing roofs
- Sarnafil® S 327, TS 77 mechanically fastened single ply membrane systems
- Sikaplan® G, VG, VGWT, TM mechanically fastened single ply membrane systems
- Sarnafil® G 410, G 410 Felt, TG 76 adhered single ply membrane systems
- Sikaplan® SGK, RV-s adhered single ply membrane systems
- Sarnafil® G 410, TG 66 loose laid ballast and inverted membrane systems
- Sikaplan® SGmA, TB loose laid ballast and inverted membrane systems

### PRODUCT INFORMATION

<b>Composition</b>	Extruded polystyrene
<b>Packaging</b>	Boards wrapped with polyethylene sheet
<b>Colour</b>	Blue
<b>Shelf life</b>	Unlimited if storage conditions are met
<b>Storage conditions</b>	The packaging of Sikatherm® XPS 300 RZ shall not be considered adequate for long term protection when stored outside. Ideally, boards shall be stored inside, sheltered and protected. If however, outside storage cannot be avoided, the boards shall be stacked clear of the ground and covered

### CHARACTERISTICS / ADVANTAGES

- Very low thermal conductivity
- Ideal for new constructions and refurbishment projects
- High compression strength
- Lightweight and low load on the roofing structure
- Withstands freeze/thaw cycles
- Closed cell structure, which minimizes water absorption

### APPROVALS / CERTIFICATES

CE-marking and Declaration of Performance as Thermal insulation product for buildings – Factory made extruded polystyrene foam (XPS) products with self-extinguishing properties according to EN 13164:2012+A1:2015 based on certificate of constancy of performance of the construction product issued by notified product certification body.

with a polythene sheet or weatherproof tarpaulin.

Dimensions	1250mm x 600mm
Thickness	20-100 mm

## TECHNICAL INFORMATION

Compressive strength	At 10% deformation [CS(10)]		(EN 826)
	<b>Thickness</b>	<b>Compressive Strength</b>	
	20	180	
	30	200	
	40	250	
	50	250	
	60	300	
	70	300	
	80	300	
100	300		

Tensile strength in flexure	400 TR [kPa]	(EN 1607)
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Reaction to fire	Class E	(EN 13501-1)
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Thermal conductivity	<b>Thickness</b>	<b>Thermal Conductivity</b>	(EN 12667)
		$\lambda_D$ [W/mK]	
	20	0,031	
	30	0,032	
	40	0,033	
	50	0,033	
	60	0,033	
	70	0,034	
	80	0,034	
100	0,034		

Thermal resistance	<b>Thickness</b>	<b>Thermal Resistance</b>
		$R_d = [m^2/W]$
	20	0,645
	30	0,943
	40	1,212
	50	1,515
	60	1,765
	70	2,059
	80	2,353
100	2,941	

Diffusion resistance to water vapour	<b>Water vapor diffusion resistance factor (MU)</b>	(EN 12086)
	Thickness 20-30 mm : 50 MU / 40-80 mm : 100 MU / 100 mm :150 MU	

Water absorption	Type of water absorption	Value (%)	Standard
	Long term water absorption by total immersion WL (T) [vol%]	0,7	EN 12087
	Long term water absorption by diffusion WD(V) [vol%]	3,0	EN 12088

# SYSTEMS

## System structure

Ancillary products and system components according to local price list.  
Roof waterproofing singly ply membranes :  
▪ Sarnafil® TS, TG, G  
▪ Sikaplan® G, VG, VGWT, SGmA, SGK, TM, TB  
Fasteners and fixings :  
▪ Sarnafast® range  
Vapour control layers:  
▪ Sarnavap® range  
Separation layer with PVC membranes:  
▪ SikaRoof® Felt product range, polyester or polypropylene based, > 300gr/m<sup>2</sup>  
▪ S-Glass Fleece-120

## Compatibility

Sikatherm® XPS 300 RZ is compatible with FPO and PVC single ply membranes Sikaplan® / Sarnafil®.  
No additional separation layer is required, when TPO based Sikaplan® / Sarnafil® is applied over the board surface.  
When PVC based Sikaplan® / Sarnafil® is applied over the board surface, SikaRoof® Felt >300gr/m<sup>2</sup> geotextile or S-Glass Fleece 120 has to be installed.

## APPLICATION INFORMATION

### Ambient air temperature

Limited to appropriate roof / waterproofing membrane system temperature limitations. Please refer to the respective Product Data Sheets.

### Substrate temperature

Limited to appropriate roof / waterproofing membrane system temperature limitations. Please refer to the respective Product Data Sheets.

## APPLICATION INSTRUCTIONS

### APPLICATION METHOD / TOOLS

Sikatherm® XPS 300 RZ is installed by mechanical attachment, over suitable Vapour Control Layer, to the roof deck, using Sarnafast® fasteners. The minimum fastener number required is one per m<sup>2</sup> of thermal insulation.  
The requirements for securing the waterproofing membrane shall be considered separately.  
The detailed fastening system of the thermal insulation shall be considered separately for each project according to local requirements.  
In ballasted roof the boards are loose laid. The specified ballast should be installed as soon as possible, once the waterproofing membrane has been installed. Mechanical fixation can also be used for the thermal insulation in ballasted roof systems.

## IMPORTANT CONSIDERATIONS

- Installation works to be carried out only by Sika instructed contractors.
- Temperature limits for application of Sikatherm® XPS 300 RZ depend on membrane system installation limits. The use of some ancillary products, e.g. adhesives is limited to temperatures above +5 °C. Please refer to the respective Product Data Sheets.

## 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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## ECOLOGY, HEALTH AND SAFETY

### REGULATION (EC) NO 1907/2006 - REACH

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in the product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0,1 % (w/w).

## 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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### Product Data Sheet

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