

## PRODUCT DATA SHEET

## Sarnafil® AT-18 FSH

Polymeric membrane (FPO) for mechanically and ballasted roof waterproofing

## DESCRIPTION

Sarnafil® AT-18 FSH (thickness 1.8 mm) is a self-healing, multi-layer synthetic roof waterproofing sheet. It is based on elastomer-modified flexible polyolefin (FPO) with internal polyester reinforcement for high strength, a glass non-woven inlay for dimensional stability and a polyester backing .  
(DE/E1 FPO-BV-V-PG-GV-K-PV-1.8)

## USES

The product is used as a waterproof membrane in the following roofing applications:

- Mechanically fastened roofing systems
- Loose laid ballasted roofs with different ballast materials such as gravel or concrete slabs
- Intensive green roofs
- Extensive green roofs
- Utility roofs
- Inverted roofs
- Terraces

## FEATURES

- Very good resistance to permanent wind exposure
- Very good resistance to impact load and hail
- Very good mechanical resistance
- Very good resistance to permanent UV exposure
- Very good resistance to common environmental influences
- Proven resistance to root penetration
- Very good resistance to micro-organisms
- Compatible with old bitumen

## CERTIFICATES AND TEST REPORTS

- CE marking and declaration of performance based on EN 13956:2012 Flexible sheets for waterproofing
- DIN/TS 20.000-201
- Tested against external fire exposure in accordance with DIN CEN/TS 1187 and classified in accordance with DIN EN 13501-5: BROOF(t1)
- Resistance to flying sparks and radiant heat according to DIN 4102-7 (tested roof structure of Sika)

## PRODUCT INFORMATION

Composition	Flexible polyolefins (FPO)	
Packaging	Standard rolls are wrapped individually in a blue PE-foil.	
	Packing unit	Refer to price list
	Roll length	10 m
	Roll width	2 m
	Roll weight	46 kg
	Refer to the current price list for available packaging variations.	
Appearance and colour	Surface	matt
	Top layer	window grey (~RAL 7040)
	Bottom layer	black
Shelf life	The product retains its properties when stored properly.	

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<b>Storage conditions</b>	The Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +5 °C and +30 °C. Store in a horizontal position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to packaging.	
<b>Visible defects</b>	Pass	(EN 1850-2)
<b>Length</b>	10 m (+0,5 m / -0,0 m)	(EN 1848-2)
<b>Width</b>	2 m (+0,02 m / -0,01 m)	(EN 1848-2)
<b>Effective thickness</b>	1.8 mm (+0.18 mm / -0.09 mm)	(EN 1848-2)
<b>Straightness</b>	≤ 30 mm	(EN 1848-2)
<b>Flatness</b>	≤ 10 mm	(EN 1848-2)
<b>Mass per area</b>	2.3 kg/m <sup>2</sup> (+0.23 kg/m <sup>2</sup> / -0.115 kg/m <sup>2</sup> )	(EN 1849-2)

## TECHNICAL INFORMATION

<b>Resistance to impact</b>	Hard substrate	≥ 1000 mm	(EN 12691)
	Soft substrate	≥ 3500 mm	
<b>Hail resistance</b>	Rigid substrate	≥ 29 m/s	(EN 13583)
	Flexible substrate	≥ 42 m/s	
<b>Resistance to static loading</b>	Soft substrate	≥ 20 kg	(EN 12730)
	Rigid substrate	≥ 20 kg	
<b>Resistance to root penetration</b>	Pass		(EN 13948)
<b>Tensile strength</b>	Longitudinal (MD)	≥ 950 N/50mm	(EN 12311-2)
	Transversal (CMD)	≥ 900 N/50mm	
<b>Elongation</b>	Longitudinal (MD)	≥ 18 %	(EN 12311-2)
	Transversal (CMD)	≥ 18 %	
<b>Dimensional stability</b>	Longitudinal (MD)	≥ 0.4 %	(EN 1107-2)
	Transversal (CMD)	≥ 0.1 %	
<b>Joint shear resistance</b>	≥ 400 N/50 mm		(EN 12317-2)
<b>Foldability at low temperature</b>	≤ -50 °C		(EN 495-5)
<b>External fire performance</b>	Class B <sub>Roof</sub> (t1) < 20°		(EN 13501-5)
<b>Reaction to fire</b>	Class E		(EN 13501-1)
<b>Chemical resistance</b>	Resistance to Ozone	Pass	(ISO 1431-1 )
<b>Effect of liquid chemicals, including water</b>	Resistant to many chemicals. Contact Sika Technical Services for additional information.		(EN 1847)
<b>Exposure to bitumen</b>	Pass		(EN 1548)
<b>Resistance to UV exposure</b>	Pass (> 5000 h / grade 0)		(EN 1297)
<b>Watertightness</b>	Pass		(EN 1928)

## APPLICATION INFORMATION

Ambient air temperature	Maximum	+60 °C
	Minimum	-20 °C
Substrate temperature	Maximum	+60 °C
	Minimum	-30 °C

## SYSTEM INFORMATION

System structure	<p>The following system accessories are available for the Sarnafil® system:</p> <ul style="list-style-type: none"><li>▪ Sarnafil® AT-18 FSA P self adhered membrane for parapet</li><li>▪ Sarnafil® T 66-15 D (sheet for detailing)</li><li>▪ Sarnafil® TS 77 stripes</li><li>▪ Sarnafil® T metal sheet</li><li>▪ Sarnabar® linear profiles and Sarnafast® fastener</li><li>▪ Sarnafil® T prefabricated part</li><li>▪ Sarnafil® T Clean/Sarnafil® T Prep/Sarnafil® seam preparation cloths</li><li>▪ Sika® Speed Clean Set</li><li>▪ Roof drain</li></ul>
Compatibility	<p>The product is compatible with the following substrates:</p> <ul style="list-style-type: none"><li>▪ All thermal insulation types and levelling layers suitable for roofing. No additional separation layer is required.</li><li>▪ Existing bituminous roofing that is clean and levelled, for example re-roofing over old flat roofs. Discolouration of the membrane surface may occur if in direct contact with bitumen.</li></ul>

## BASIS OF PRODUCT DATA

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

## ECOLOGY, HEALTH AND SAFETY

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).

## APPLICATION INSTRUCTIONS

The general installation principles and processing instructions in the applicable Sarnafil® installation instructions must be observed. These can be requested from Sika Germany. Application should be carried out by Sika-trained applicators.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## 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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