

PRODUCT DATA SHEET

Sarnafil® TS 77-18

Polymeric FPO membrane for mechanically fastened roof waterproofing

DESCRIPTION

Sarnafil® TS 77-18 (thickness 1,8 mm) is a polyester reinforced, multi-layer, synthetic roof waterproofing sheet based on flexible polyolefins (FPO) with an inlay of glass non-woven according to EN 13956. Sarnafil® TS 77-18 is a hot air weldable roof membrane formulated for direct exposure. Sarnafil® TS 77-18 is produced with an inlay of glass non-woven for dimensional stability and a polyester reinforcement.

USES

Waterproofing membrane for mechanically fastened roofing systems, also under gravel and green roof.

FEATURES

- Proven performance over decades
- Resistant to hail
- Resistant to mechanical impact
- Resistant to root penetration
- Compatible to old bitumen

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to EN 13956 - Polymeric sheets for roof waterproofing recognized by the certified body 1213-CPD-3915 and provided with CE mark
- DIN SPEC 20000-201
- DIN 18531-2
- behaviour when exposed to fire according to DIN EN 13501-1; Class E
- Approved against external fire exposure according to DIN EN 1187 and classified according to DIN EN 13501-5; B_{ROOF}(t1)
- Resistance to flying sparks and radiant heat according to 4102/Teil 7

PRODUCT INFORMATION

Product declaration	DIN EN 13956 / DIN SPEC 20000-201	
Composition	Flexible polyolefins (FPO)	
Packaging	Sarnafil® TS 77-18 rolls are wrapped individually in a blue PE-foil. Packaging units and other membrane strips according to current price list.	
	Roll length	15/30 m
	Roll width	2/1 m
	Roll weight	59,4 kg
Shelf life	The product retains its properties when stored properly.	
Storage conditions	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.	
Appearance and colour	Colours:	
	Top surface:	beige window grey (nearest RAL 7040) other colours according to the current price list
	Bottom surface:	black
Visible defects	Pass	(EN 1850-2)
Length	15/30 m (-0 % / +5 %)	(EN 1848-2)
Width	2/1 m (-0.5 % / +1 %)	(EN 1848-2)
Effective thickness	1,8 mm (-5 % / +10 %)	(EN 1849-2)
Straightness	≤ 30 mm	(EN 1848-2)
Flatness	≤ 10 mm	(EN 1848-2)
Mass per area	1,9 kg/m ² (-5 % / +10 %)	(EN 1849-2)

SYSTEM INFORMATION

System structure	<p>The following products must be considered for use depending on roof design:</p> <ul style="list-style-type: none">▪ Sarnafil® AT FSA P (selfadhered membrane strips)▪ Sarnafil® T 66-15 D (homogenous strips for detailing)▪ Sarnafil® TS 77 strips▪ Sarnafil® T Metal Sheet▪ Sarnafil® T Welding Cord▪ Sarnabar® fastening system▪ Sarnafil® prefabricated parts▪ Sarnacol® T 660 (contact adhesive)▪ Sika® Speed Clean (cleaning set)▪ Sarnafil® T Clean/ T Prep (seam preparation)▪ Sarnafil® roof drains and scuppers
Compatibility	<p>Sarnafil® TS 77-18 may be installed on all thermal insulations and levelling layers suitable for roofing. No additional separation layer is required. Eventually a fire protection layer is needed.</p> <p>Sarnafil® TS 77-18 is suitable for installation directly on top of existing, carefully cleaned, levelled bituminous roofing, e.g. re-roofing over old flat roofs. Colour changes in membrane surface may occur if in direct contact with bitumen.</p>

TECHNICAL INFORMATION

Resistance to impact	hard substrate	≥ 1000 mm	(EN 12691)
	soft substrate	≥ 1250 mm	
Hail resistance	rigid substrate	≥ 25 m/s	(EN 13583)
	flexible substrate	≥ 36 m/s	
Resistance to static loading	soft substrate	≥ 20 kg	(EN 12730)
	rigid substrate	≥ 20 kg	
Resistance to root penetration	Pass		(EN13948)
Tensile strength	longitudinal (md) ¹⁾	≥ 1000 N/50mm	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 900 N/50mm	
¹⁾ md = machine direction ²⁾ cmd = cross machine direction			
Elongation	longitudinal (md) ¹⁾	≥ 13 %	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 13 %	
¹⁾ md = machine direction ²⁾ cmd = cross machine direction			
Tear strength	longitudinal (md) ¹⁾	≥ 300 N	(EN 12310-2)
	transversal (cmd) ²⁾	≥ 300 N	
¹⁾ md = machine direction ²⁾ cmd = cross machine direction			
Joint peel resistance	Failure mode: C, no failure of the joint		(EN 12316-2)
Joint shear resistance	≥ 500 N/50 mm		(EN 12317-2)
Dimensional stability	longitudinal (md) ¹⁾	≤ 0.2 %	(EN 1107-2)
	transversal (cmd) ²⁾	≤ 0.1 %	
¹⁾ md = machine direction ²⁾ cmd = cross machine direction			
Foldability at low temperature	≤ -40 °C		(EN 495-5)
Watertightness	Pass		(EN 1928)
Water-vapour transmission rate	μ = 190 000		(EN 1931)
Exposure to bitumen	Pass ³⁾		(EN 1548)
³⁾ Sarnafil® T is compatible to old bitumen			
Effect of liquid chemicals, including water	On request		(EN 1847)
Resistance to UV exposure	Pass (> 5000 h / grade 0)		(EN 1297)
External fire performance			(EN 1187)
	B _{ROOF} (t1) < 20°		(EN 13501-5)
Reaction to fire	Class E	(EN ISO 11925-2, classification to EN 13501-1)	

APPLICATION INFORMATION

Ambient air temperature	-20 °C min. / +60 °C max.
Substrate temperature	-30 °C min. / +60 °C max.

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.

IMPORTANT CONSIDERATIONS

Installation work must only be carried out by Sika® trained and approved contractors, experienced in this type of application.

ECOLOGY, HEALTH AND SAFETY

Fresh air ventilation must be ensured, when working (welding) in closed rooms. Installation of RAL 9016 SR type requires the use of UV protection goggles.

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).

APPLICATION INSTRUCTIONS

EQUIPMENT

Hot welding overlap seams Electric hot air welding equipment, such as hand held manual hot air welding equipment and pressure rollers or automatic hot air welding machines with controlled hot air temperature capability of a minimum 600 °C. The welding temperature belongs to various factors as ambient temperature, weather conditions and the welding speed. Basic informations about welding parameters are listed in the current application manual. Recommended type of equipment:

Manual: Leister Triac

Automatic: Sarnamatic LE

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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Sarnafil® TS 77-18

February 2024, Version 03.02

020910012000181001

SarnafilTS77-18-en-DE-(02-2024)-3-2.pdf