

# Sarnafil® TG 76-18 Felt

## Polymeric membrane for roof waterproofing

<b>Product Description</b>	<p>Sarnafil® TG 76-18 Felt (thickness 1.8 mm) is a multi-layer, synthetic roof waterproofing sheet based on premium-quality flexible polyolefins (FPO), containing stabilizers, with inlay of glass non-woven and Polyester fleece backing according to EN 13956.</p> <p>Sarnafil® TG 76-18 Felt is a hot air weldable, UV-resistant roof membrane, designed to use in all global climatic conditions. Sarnafil® TG 76-18 Felt is produced with an inlay of glass non-woven for dimensional stability. Sarnafil® TG 76-18 Felt is used for adhered roofs.</p> <p>Sarnafil® TG 76-18 Felt has no built-in stress at the time of production and has a fully encapsulated carrier with no risk to delamination or water-wicking. The dimensional stability of Sarnafil® TG 76-18 Felt is excellent.</p>																												
<b>Uses</b>	<p>Waterproofing membrane for:</p> <ul style="list-style-type: none"> <li>■ Adhered roofs</li> </ul>																												
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"> <li>■ Outstanding resistance to weathering, including permanent UV irradiation</li> <li>■ Excellent flexibility in cold temperatures</li> <li>■ No built-in stress at the time of production</li> <li>■ High dimensional stability</li> <li>■ High resistance against impact load</li> <li>■ Excellent weldability</li> <li>■ No risk of delamination or water-wicking</li> <li>■ Compatible to old bitumen</li> <li>■ Recyclable</li> </ul>																												
<b>Approval / Standards</b>	<p>Sarnafil® TG 76-18 Felt is designed and manufactured to meet the most international recognised standards.</p> <ul style="list-style-type: none"> <li>■ Polymeric sheets for roof waterproofing according to EN 13956, certified by notified body 1213-CPD-3914 and provided with the CE-mark.</li> <li>■ Reaction to fire according to EN 13501-1.</li> <li>■ External fire performance tested according to ENV 1187 and classified according to EN 13501-5: B<sub>ROOF</sub>(t1).</li> <li>■ Official Quality Approvals and Agreement Certificates and approvals.</li> <li>■ Monitoring and assessment by approved laboratories.</li> <li>■ Quality Management system in accordance with EN ISO 9001/14001.</li> </ul>																												
<b>Appearance / Colours</b>	<table border="0"> <tr> <td>Surface:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>                    </td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>Colours:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>Top surface:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>                    </td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>Bottom surface:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> </table>	Surface:								Colours:				Top surface:								Bottom surface:							
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<b>Packaging</b>	<p>Sarnafil® TG 76-18 Felt standard rolls are wrapped individually in a blue PE-foil.</p> <table border="0"> <tr> <td>Packing unit:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>                    </td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>Roll length:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>                    </td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>Roll width:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>                    </td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> <tr> <td>Roll weight:</td> <td>                    </td> <td>                    </td> <td>                    </td> </tr> </table>	Packing unit:								Roll length:								Roll width:								Roll weight:			
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<b>Storage Conditions / Shelf-Life</b>	<p>Rolls must be stored in a horizontal position on pallet and protected from direct sunlight, rain and snow. Product does not expire if correctly stored.</p> <p>Do not stack pallets of rolls during transport or storage.</p>																												



## Technical Data

<b>Product Declaration</b>	EN 13956	
<b>Visible defects</b>	Pass	EN 1850-2
<b>Length</b>	15 m (-0% / +5 %)	EN 1848-2
<b>Width</b>	2 m (-0.5% / +1%)	EN 1848-2
<b>Straightness</b>	≤ 30 mm	EN 1848-2
<b>Flatness</b>	≤ 10 mm	EN 1848-2
<b>Effective thickness</b>	1.8 mm (-5% / +10%)	EN 1849-2
<b>Mass per unit area</b>	2.1 kg/m <sup>2</sup> (-5% / +10%)	EN 1849-2
<b>Water tightness</b>	Pass	EN 1928
<b>Effects of liquid chemicals, including water</b>	On request	EN 1847
<b>External fire performance</b>		ENV 1187
<b>Part 1-4</b>	B <sub>ROOF</sub> (t1) < 20°	EN 13501-5
<b>Reaction to fire</b>	Class E	EN ISO 11925-2, classification to EN 13501-1
<b>Hail resistance</b>		EN 13583
<b>rigid substrate</b>	≥ 25 m/s	
<b>flexible substrate</b>	≥ 33 m/s	
<b>Joint peel resistance</b>	≥ 300 N/50 mm	EN 12316-2
<b>Joint shear resistance</b>	≥ 500 N/50 mm	EN 12317-2
<b>Water vapour transmission properties</b>	μ = 150'000	EN 1931
<b>Tensile strength</b>		EN 12311-2
<b>longitudinal (md)<sup>1)</sup></b>	≥ 800 N/50 mm	
<b>transversal (cmd)<sup>2)</sup></b>	≥ 600 N/50 mm	
<b>Elongation</b>		EN 12311-2
<b>longitudinal (md)<sup>1)</sup></b>	≥ 50 %	
<b>transversal (cmd)<sup>2)</sup></b>	≥ 50 %	
<b>Resistance to impact</b>		EN 12691
<b>hard substrate</b>	≥ 1000 mm	
<b>soft substrate</b>	≥ 1750 mm	
<b>Resistance to static load</b>		EN 12730
<b>soft substrate</b>	≥ 20 kg	
<b>rigid substrate</b>	≥ 20 kg	
<b>Dimension stability</b>		EN 1107-2
<b>longitudinal (md)<sup>1)</sup></b>	≤  0.2  %	
<b>transversal (cmd)<sup>2)</sup></b>	≤  0.1  %	
<b>Foldability at low temperature</b>	≤ -30 °C	EN 495-5
<b>UV exposure</b>	Pass (> 5'000 h / grade 0 )	EN 1297
<b>Exposure to bitumen<sup>3)</sup></b>	Pass	EN 1548

<sup>1)</sup>md = machine direction

<sup>2)</sup>cmd = cross machine direction

<sup>3)</sup> Sarnafil® T is compatible to old bitumen

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## System Information

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### System Structure

Wide range of accessories is available e.g. prefabricated parts, roof drains, scuppers and walkway pads.

The following materials are strongly recommended:

Sarnafil® T 66-15 D Sheet for detailing  
Sarnafil® T Metal Sheet  
Sarnabar  
Sarnafil® T Prep / Sarnafil® T Wet Task Set  
Sarnacol® T 660  
Solvent T 660  
Sarnacol® 2142S  
Sarnafil® T Clean

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### Application Details

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#### Substrate Quality

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc.

The supporting layer must be compatible to the membrane and free of oil and grease. Cut open any blisters in the old waterproofing and repair.

The safety of the existing roof assembly in terms of wind uplift must be ensured. Any insufficiently secured sections or components (e.g. chippings, slating etc.) must be removed to provide a smooth surface.

The curing of Sarnacol® 2142S requires moisture. The base layer may therefore be slightly moist (no puddles). If the relative humidity is below 35 % moisten the adhesive after it has been applied.

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### Application Conditions / Limits

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#### Temperature

The use of Sarnafil® TG 76-18 Felt membrane is limited to geographical locations with average monthly minimum temperatures of -50 °C. Permanent ambient temperature during use is limited to + 50 °C.

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#### Compatibility

Sarnafil® TG 76-18 Felt may be installed on all thermal insulations and levelling layers suitable for roofing. No additional separation layer is required.

Sarnafil® TG 76-18 Felt is suitable for installation directly on top of existing, carefully cleaned, level bituminous roofing, e.g. re-roofing over old flat roofs.

Sarnacol® 2142S single-component PUR adhesive is designed for adhering felt-backed Sarnafil® TG 76-18 Felt to standard insulations and substrates. Adhering Sarnafil® TG 76-18 Felt by means of Sarnacol® 2142S is particularly suitable for re-roofing over old bitumen waterproofing. (Not suitable for re-roofing over synthetic, rubber or ECB roofing).

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## Installation Instructions

### Installation Method / Tools

Installation procedure:

According to the valid installation instructions of manufacturer for systems with Sarnafil® TG 76 Felt-types for fully adhered roofs.

Adhering:

- Use Sarnacol® 2142S only at temperatures above +5 °C
- Use only on slopes less than 10°
- Lay out and align Sarnafil® TG 76-18 Felt with the felt-free edge along upstands.
- From the end of the run fold back Sarnafil® TG 76-18 Felt to approximately half-way.
- Using a roller (pile length approx. 15 mm) apply Sarnacol® 2142S evenly over the surface exposed by the folded back Sarnafil® sheet.
- Very absorbent surfaces, e.g. mineral fibre, require two coats of adhesive. The first coat of approx 300 g/m<sup>2</sup> must be completely dry before applying the second.
- Roll the folded back Sarnafil® TG 76-18 Felt sheet immediately into the wet adhesive.
- Press down the Sarnafil® TG 76-18 Felt with a weighted roller (50 kg).
- Fold back the other half of the Sarnafil® TG 76-18 Felt membrane.
- According to site conditions (roof geometry) adjoin the next Sarnafil® sheet at the end of the adhered membrane to form a butt joint or lay the following rolls alongside with overlapped joints.

Peeling protection must be provided at all upstands and roof penetrations, as work proceeds. The roof built up must be mechanically secured by a peel stop using Sarnabar.

Welding:

- The adhered Sarnafil® TG 76-18 Felt may only be welded together after the adhesive bond is sufficiently strong.
- Butt joints should be covered with a Sarnafil® TG 66-15 cover strip welded on either side.

Welding Method:

Before welding the seams are prepared with Sarnafil® T Prep. Overlap seams are welded by electric hot air welding equipment, such as manual hot air welding machines and pressure rollers or automatic hot air welding machines with controlled hot air temperature.

Recommended type of equipment: Leister Triac PID for manual welding  
Sarnamatic 661<sup>plus</sup> for automatic welding

Welding parameters including temperature, machine speed, air flow, pressure and machine settings must be evaluated, adapted and checked on site according to the type of equipment and the climatic situation prior to welding. The effective width of welded overlaps by hot air should be minimum 20 mm.

The seams must be mechanically tested with screw driver to ensure the integrity / completion of the weld. Any imperfections must be rectified by hot air welding.

### Notes on Installation / Limits

Installation works to be carried out only by Sika instructed contractors for roofing.

Temperature limits for the installation of the membrane:

Substrate temperature: -30 °C min. / +60 °C max.

Ambient temperature: -20 °C min. / +60 °C max.

Installation of some ancillary products, e.g. contact adhesives / cleaners is limited to temperatures above +5 °C. Please observe information given by Product Data Sheets.

Special measures may be compulsory for installation below +5 °C ambient temperature due to safety requirements in accordance with national regulations.

<b>Value Base</b>	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.
<b>Local Restrictions</b>	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.
<b>Ecology, Health and Safety Information</b>	A Safety Data Sheet following EC-Regulation 1907/2006, Article 31 is not needed to bring the product to the market, to transport or to use it. The product does not damage the environment when used as specified.
<b>REACH</b>	<p><b>European Community Regulation on chemicals and their safe use (REACH: EC 1907/2006)</b></p> <p>This product is an article within the meaning 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. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.</p> <p>Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w).</p>
<b>Protective Measures</b>	<p>Fresh air ventilation must be ensured, when working (welding) in closed rooms.</p> <p>Local safety regulations must be observed.</p>
<b>Transportation Class</b>	The product is not classified as hazardous good for transport.
<b>Disposal</b>	The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

**Legal note:** 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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