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to Article 29 of the Regulation (EU)  
No 305/2011 of the European  
Parliament and of the Council of 9  
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MEMBER OF EOTA



## European Technical Assessment ETA-18/0882 of 2018/11/06

### I General Part

**Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S**

**Trade name of the construction product:**

180 Alfa Rufol Thermo ND SK

**Product family to which the above construction product belongs:**

Membrane for use as roof underlay

**Manufacturer:**

Alfa GmbH  
Ferdinand-Porsche Straße 10  
DE-73479 Ellwangen  
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Telephone: +49 07961/57990

**Manufacturing plant:**

Alfa GmbH  
Manufacturing Plant II

**This European Technical Assessment contains:**

6 pages

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:**

EAD 030218-00-0402 - Membrane for use as roof underlay

**This version replaces:**

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## II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

### 1 Technical description of product and intended use

#### Technical description of the product

##### General

The membranes consist of multilayer flexible sheets. They are diffusion open membranes with increased UV resistance, perforation resistance, resistance to water pressure and tightness of perforations from nails and screws.

The membranes consist of a polyester and a multi-acrylate coating.

<b>Designation</b>	<b>180 Alfa Rufol Thermo ND SK</b>
<b>Characteristics</b>	
Composition	Unwoven polyester / Multi-acrylate coating
Total weight	220 g/m <sup>2</sup>
Minimum slope	≥ 14°
Assembly method in overlaps	Gluing

The roof underlay membranes are fastened to the timber joists with nails or screws. No additional nail sealing material is necessary on a full-surface pressure-resistant substrate. In the case of non-full-surface, the nail and screw holes are waterproofed with nail sealing tape 128 Alfa PE Double sided nail sealing tape.

The roofing membrane is installed with specified Alfa accessories. Connection details are made with the adhesive tape 153 Alfa Flex.

### 2 Specification of the intended use in accordance with the applicable EAD

The membranes are intended for use as underlays, which are to be used under roof covering of roofs with roof pitch from 14° to 90°.

The membranes are intended to be used in high altitude and to be exposed to weathering (UV, rain) for a defined extended period of time up to 3 months.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the roof underlay of 10 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or Assessment Body, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

#### Characteristic

#### Assessment of characteristic

#### 3.2 Safety in case of fire (BWR2)

Reaction to fire

The membranes obtain the following classification in accordance with EN 13501-1 and Delegated Regulation 2016/364

<b>Designation</b>	<b>180 Alfa Rufol Thermo ND SK</b>
<b>Class</b>	<b>E</b>
<b>End use condition</b>	With any A1 or A2-s1,d0 class substrate with a density $\geq 652$ kg/m <sup>3</sup> , and metal and mineral substrates

#### 3.3 Hygiene, health and the environment (BWR3)

Resistance to water penetration

**W1 according to 13859-1**

Water vapour transmission

**Sd = 0,139 m**

Tensile properties

<b>Designation</b>	<b>180 Alfa Rufol Thermo ND SK</b>
<b>Characteristics</b>	
Tensile properties Longitudinal, initial	Mean value: $F_{max} = 450$ N/50mm Elongation: 25%
Longitudinal, aged	Mean value: $F_{max} > 90\%$ of unaged Elongation: $> 75\%$ of unaged
Transverse, initial	Mean value: $F_{max} = 290$ N/50mm Elongation: 60%
Transverse, aged	$F_{max} > 90\%$ of unaged Elongation: $> 75\%$ of unaged

Resistance to tearing

<b>Designation</b>	<b>180 Alfa Rufol Thermo ND SK</b>
<b>Characteristics</b>	
Resistance to tearing Longitudinal, initial	Mean value: $F_{max} = 110$ N/200 mm
Longitudinal, aged	NPA
Transverse, initial	Mean value: $F_{max} = 130$ N/200 mm
Transverse, aged	NPA

Resistance to perforation

**No Performance assessed**

Characteristic	Assessment of characteristic
Dimensional stability	<b>&lt; 1 % both longitudinal and transverse</b>
Flexibility at low temperature	<b>T<sub>B</sub> ≤ -40 °C</b>
Resistance to artificial ageing: UV resistance 5000h Exposure to heat	<b>Requirement fulfilled after 336 h and after 5000 h UV exposure See above</b>
Resistance to penetration of air	<b>&lt; 0,1 m<sup>3</sup>/ (m<sup>2</sup> × h × 50 Pa)</b>  180 Alfa Rufol Thermo ND SK with including Adhesive sealing tape 153 Alfa Flex
Water tightness of seams	<b>The seams with 50 mm width are watertight at a water pressure of 2000 Pa (200 mm water column)</b>
Emissivity	No Performance Assessed
Tightness of perforations from nails and screws	1. 180 Alfa Rufol Thermo ND SK. No additional nail sealing material is necessary on a full-surface pressure-resistant substrate  2. 180 Alfa Rufol Thermo ND SK with nail sealing tape 128 Alfa PE double-sided nail sealing tape, in the case of non-full-surface.
<b>Heavy rain of 2 l / m<sup>2</sup> × min up to a wind pressure of 600 Pa.</b>	

### Aspects related to the performance of the product

The European Technical Assessment is issued for the product on the basis of agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

The performance of the membranes results from the characteristic values and categories.

The supplementing statements of the manufacturer stated in the MTD for design and application of the membrane for creating a roof underlay with the appropriate performance shall be considered

The performance of the membranes in use as roof underlay can be assumed only, if the following aspects are considered:

- only those ancillary components which are specified by the ETA can be used,
- the appropriate tools shall be used and adjuvant, precautions shall be taken,
- inspecting the substrate surface for appropriateness and correct treatment,
- inspection in the process of establishing the roof underlay and of the finished installation and documentation of the results.

The information as to the handling of waste products shall be observed.

It is the manufacturer's responsibility to make sure that all those who utilize the membrane will be appropriately informed about the specific conditions according to this ETA and the not confidential parts of the MTD deposited to this ETA.

## **4 Attestation and verification of constancy of performance (AVCP)**

### **4.1 AVCP system**

According to the decision Decision 99/90/EC and 2001/596/EC of the European Commission as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 3.

## **5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2018-11-06 by



Thomas Bruun  
Managing Director, ETA-Danmark