

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-17/0284  
of 2 August 2018

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Triflex SmartTec

Product family  
to which the construction product belongs

Liquid applied roof waterproofing based on polyurethane

Manufacturer

Triflex GmbH & Co. KG  
Karlstraße 59  
32423 Minden  
DEUTSCHLAND

Manufacturing plant

Triflex GmbH & Co. KG  
Karlstraße 59  
32423 Minden

This European Technical Assessment  
contains

8 pages including 3 annexes which form an integral part  
of this assessment

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

ETAG 005 Part 6: "Specific stipulations for kits based on  
polyurethane",  
used as EAD according to Article 66 Paragraph 3 of  
Regulation (EU) No 305/2011.

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## Specific part

### 1 Technical description of the product

The liquid applied roof waterproofing "Triflex SmartTec" is a kit, which consists of:

- primer "Triflex Metall Primer" if required
- liquid applied roof waterproofing "Triflex SmartTec" on the basis of a one-component polyurethane
- polyester fleece as reinforcement

For an adequate adhesion of the waterproofing layer – depending on the type of substrate – a primer is required. In general the primer belonging to the substrate is given in the manufacturer technical documents<sup>1</sup>. In single cases the manufacturer is responsible to give guidance which pretreatment/primer is required.

The minimum layer thickness of the roof waterproofing applied is 2.0 mm.

As an assembled system applied on the substrate these components form a homogeneous, seamless roof waterproofing.

The components and the system build-up of the roof waterproofing "Triflex SmartTec" are given in Annex A.

### 2 Specification of the intended use in accordance with the applicable European Assessment Document

The product is used for the waterproofing of roof surfaces against penetration of atmospheric water.

The product is suitable for compressible substrates (e. g. insulation boards) and non-compressible substrates (e. g. steel, concrete).

In the technical file the manufacturer give information concerning the substrates which the product is suitable for and on how these substrates shall be pre-treated.

The levels of use categories are given in Annex A.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the roof waterproofing of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, 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.

The levels of use categories and performances given in Section 3 are only valid if the liquid applied roof waterproofing is used in compliance with the specifications and conditions given in Annex B and the installation instructions of the manufacturer stated in the technical documents.

<sup>1</sup> The manufacturer's technical documents comprises all information necessary for the production and the installation of the product as well as for repair of the roof waterproofing made from that and it is deposited with DIBt.

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

#### 3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
External fire performance	See Annex A1/A2
Reaction to fire	See Annex A1

#### 3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Water vapour permeability	See Annex A1
Watertightness	See Annex A1
Content of dangerous substances	no performance assessed
Release scenario regarding BWR 3 : S/W 2	
Resistance to plant roofs	See Annex A1

#### 3.3 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Resistance to wind loads	See Annex A1
Slipperiness	See Annex A1

#### 3.4 General aspects

The verification of durability and serviceability is part of testing the essential characteristics. Durability and serviceability are only ensured if the specifications of intended use according to Annex B and the specifications of the technical file of the manufacturer are kept.

### 4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with ETAG 005-6 used as EAD, the applicable European legal act is: 98/599/EC.

The system to be applied is: 3

In addition, with regard to e.g. reaction to fire for products covered by this ETAG the applicable European legal act is: 2001/596/EC

The system to be applied is: 3

English translation prepared by DIBt

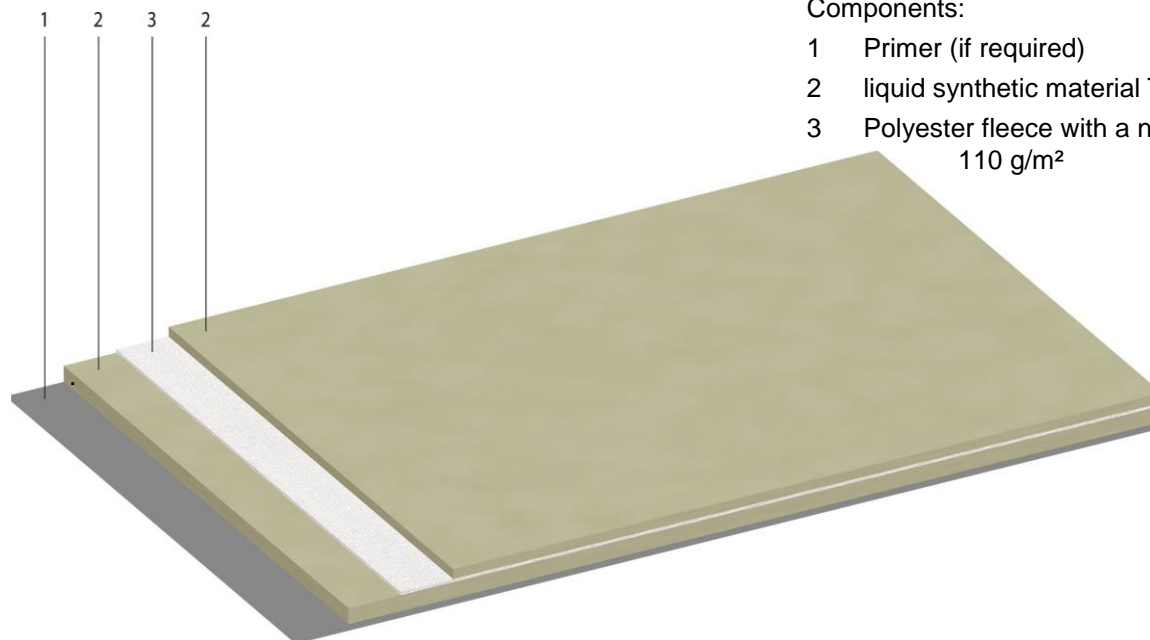
**5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 2 August 2018 by Deutsches Institut für Bautechnik

BD Dipl.-Ing. Andreas Kummerow  
Head of Department

*Beglaubigt:*  
Hannoun



Components:

- 1 Primer (if required)
- 2 liquid synthetic material Triflex SmartTec
- 3 Polyester fleece with a nominal weight of 110 g/m<sup>2</sup>

Roof waterproofing "Triflex SmartTec":

Minimum layer thickness	2.0 mm	
Minimum quantity consumed:	3.0 kg/m <sup>2</sup>	
<u>Levels of use categories according to ETAG 005 with relation to:</u>		
Working life:	W3	
Climatic zones	M and S (moderate and severe climatic)	
Resistance to mechanical damage (perforation) (non-compressible substrate, e.g. concrete/steel and compressible substrate, e.g. insulation boards)	P1 to P4 (from low to high)	
Roof slope	S1 to S4 (all slopes)	
Lowest surface temperature	TL4 (-30 °C)	
Highest surface temperature	TH4 (90 °C)	
<u>Performance of the product:</u>		
External fire performance	EN 13501-5	* B <sub>ROOF</sub> (t1), B <sub>ROOF</sub> (t2), B <sub>ROOF</sub> (t3) & B <sub>ROOF</sub> (t4)
Reaction to fire	EN 13501-1	E
Water vapour diffusion resistance factor μ	μ ≈ 993	
Watertightness	pass	
Statement on dangerous substances	see section 3.2	
Resistance to plant roots	no performance assessed	
Resistance to wind loads	≥ 50 kPa for tear resistant substrates	
Resistance to slipperiness	no performance assessed	

\* The classification is valid for supporting decks see annex A2

**Triflex SmartTec**  
Triflex GmbH & Co. KG

**System built-up and classifications**

Annex A1

* The classification is valid for the following supporting decks:			
Class B <sub>ROOF</sub> (t1)	Class B <sub>ROOF</sub> (t2)	Class B <sub>ROOF</sub> (t3)	Class B <sub>ROOF</sub> (t4)
<ul style="list-style-type: none"> <li>• For pitches &lt; 20° on                             <ul style="list-style-type: none"> <li>– any not combustible decks with a maximum gaps of 5 mm</li> <li>– any continuous wooden decks underlay</li> <li>– insulation (EPS 100 mm) covered with two layers SBS bitumen</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• All pitches with                             <ul style="list-style-type: none"> <li>– combustible and non-combustible substrates, e.g. wood deck 18 mm with</li> <li>– vapour barrier and</li> <li>– Insulation (EPS 50 mm) covered with two layers SBS bitumen</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• For pitches &lt; 10° on                             <ul style="list-style-type: none"> <li>– any wooden continuous deck a minimum thickness of 12 mm</li> <li>– any deck made of wooden planks with plain edges</li> <li>– any non-combustible deck with gap not exceeding 5 mm</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• For pitches &lt; 10° by roof consisting of                             <ul style="list-style-type: none"> <li>– plywood deck (18 mm)</li> <li>– vapour control layer</li> <li>– PIR-insulation (120 mm)</li> </ul> </li> </ul>

Any other roof systems for which classification documents for B<sub>ROOF</sub> (tX) according EN 13501-5 are available

**Triflex SmartTec**  
Triflex GmbH & Co. KG

**Supporting decks for external fire performance**

Annex A2

### Installation

The levels of use categories and the performances of the roof waterproofing can be assumed only, if the installation is carried out according to the installation instructions stated in the technical file of the manufacturer, in particular taking account of the following points:

- installation by appropriately trained personnel,
- installation of only those components which are marked components of the kit,
- installation with the required tools and adjuvants,
- precautions during installation,
- inspecting the roof surface for cleanliness and correct preparation, if need be, applying a primer before applying the product,
- inspecting compliance with suitable weather and curing conditions,
- finding out whether to the given ambient temperature the application with the adjustment for summer or winter is to be accomplished,
- ensuring a thickness of the waterproofing of at least 2.0 mm by processing appropriate minimum quantities of material,
- inspections during installation and of the finished product and documentation of the results.

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<b>Triflex SmartTec</b> Triflex GmbH & Co. KG	Annex B
<b>Intended use</b> Specifications	