

Approval body for construction products  
and types of construction

Bautechnisches Prüfamnt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-10/0254  
of 22 June 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 ProThan  
Triflex ProThan Detail

Product family  
to which the construction product belongs

Liquid applied roof waterproofing kit on the basis of  
polyurethane -two-component- with polyesterfleece for  
reinforcement

Manufacturer

Triflex GmbH & Co. KG  
Karlstraße 59  
32423 Minden  
DEUTSCHLAND

Manufacturing plant

Triflex GmbH & Co. KG  
Karlstraße 59  
32423 Minden  
DEUTSCHLAND

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.

This version replaces

ETA-10/0254 issued on 21 June 2013

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## Specific part

### 1 Technical description of the product

The liquid applied roof waterproofings "Triflex ProThan" and "Triflex ProThan Detail" are kits, which consist of the components:

- primer (if required)
- liquid applied roof waterproofing on the basis of polyurethane
- polyester fleece layer as reinforcement

"Triflex ProThan Detail" is a thixotropic variant of "Triflex ProThan" used for vertical and strong pitched areas and details.

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 2.1 mm.

As an assembled system these components form a homogeneous seamless roof waterproofing. Annex A shows the system build-up of the roof waterproofings "Triflex ProThan" and "Triflex ProThan Detail".

### 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.

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 product 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 A
Reaction to fire	see Annex A

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

Essential characteristic	Performance
Water vapour permeability	see Annex A
Watertightness	see Annex A
<b>Content of dangerous substances</b>	
Substance/s classified as EU-cat. Carc. 1A und/oder 1B <sup>a)</sup>	The product does not contain these dangerous substances. <sup>b)</sup>
Substances classified as EU-cat. Muta 1A und/oder 1B <sup>a)</sup>	
Substances classified as EU-cat Repr. 1A und/oder 1B <sup>a)</sup>	
Release scenario regarding BWR 3 : S/W 2	
Resistance to mechanical damage (perforation)	see Annex A, Levels of use categories
Resistance to plant roots	see Annex A

<sup>a)</sup> In accordance with the Regulation (EG) No. 1272/2008.

<sup>b)</sup> Assessment based on the detailed manufacturer's statements.

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

Essential characteristic	Performance
Resistance to wind loads	see Annex A
Slipperiness	see Annex A

#### 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 used as EAD, the applicable European legal act is: 98/599/EC

The system to be applied is: 3

In addition, with regard to 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

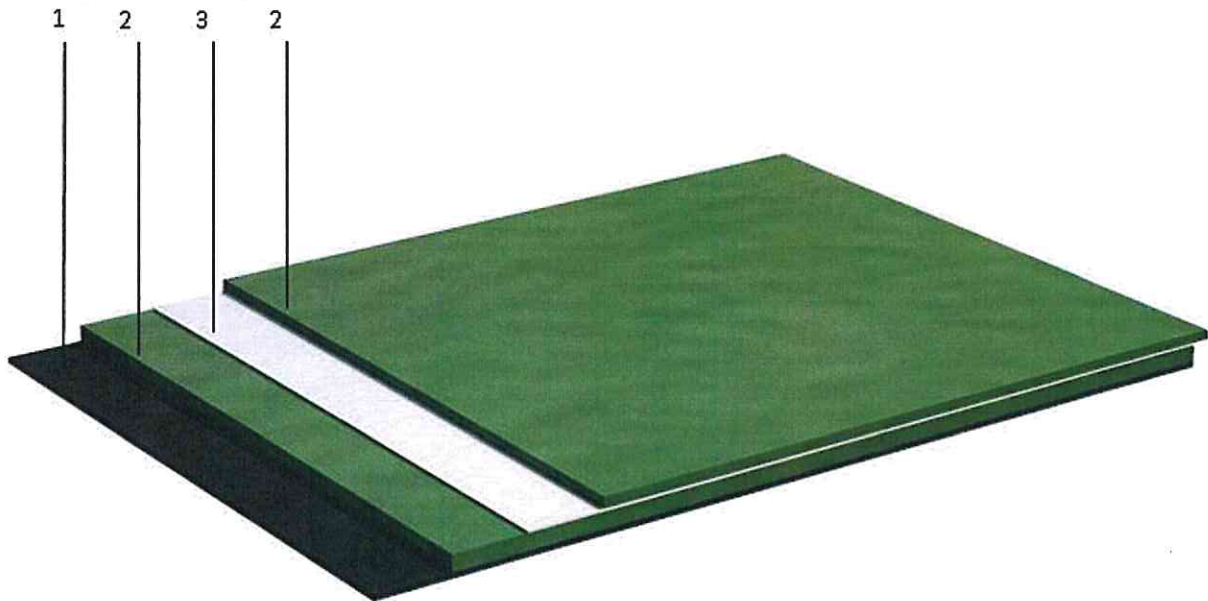
**5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

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 22 June 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
- 3 Polyester fleece layer

Applicable to the roof waterproofing "**Triflex ProThan**" / "**Triflex ProThan Detail**":

Polyester fleece with at least a weight of	110 g/m <sup>2</sup>	
Minimum layer thickness	2.1 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 (25 years)	
Climatic zones	M and S (moderate and severe climatic)	
Resistance to mechanical damage (perforation) (compressible substrate, e.g. insulation boards and non-compressible substrate, e.g. concrete/steel)	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> (t4) *
Reaction to fire	EN 13501-1	E
Water vapour diffusion resistance factor $\mu$ (at 0% to 75% r.h)		$\mu \approx 35000$
Watertightness		pass
Statement on dangerous substances		see section 3.2
Resistance to plant roots		no performance assessed
Resistance to wind loads		$\geq 50$ kPa for tear resistant substrates
Resistance to slipperiness		no performance assessed

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

**Triflex ProThan / Triflex ProThan Detail**  
Triflex GmbH & Co. KG

**System built-up, levels of use categories and performance of the product**

Annex A1

**Classification of the external fire performance according EN 13501-5  
for the following supporting decks for the roof waterproofing  
"Triflex ProThan" / "Triflex ProThan Detail"**

**Class B<sub>ROOF</sub> (t1)**

The classification is valid for the following supporting decks:

- all roof pitches.
- any wooden continuous deck with a minimum thickness of 16 mm and with gaps not exceeding 0.5 mm;
- any non-combustible continuous deck with a minimum thickness of 10 mm
- with 100 mm thick expanded polystyrene (EPS) DAA (EN 13163) covered with bitumen sheet.

**Class B<sub>ROOF</sub> (t4)**

The classification is valid for the following supporting decks:

- pitches  $\leq 10^\circ$ .
- deck und supporting structure consisting of (upwards):
  - plywood deck (19 mm thick).
  - vapour control layer of self-adhesive polymer modified bitumen sheet (0.6 mm thick with reinforcement and composite aluminium foil) applied on a primer of synthetic rubber resin.
  - two-component PUR adhesive (3 mm thick) as adhesive for the PIR-insulation.
  - PIR-insulation (120 mm thick).
  - carrier membrane of self-adhesive polymer modified bitumen sheet (0.6 mm thick with reinforcement and composite aluminium foil).

Any other roof system for which classification documents for B<sub>ROOF</sub> (tx) according to EN 13501-5 are available.

**Triflex ProThan / Triflex ProThan Detail**  
Triflex GmbH & Co. KG

**Reaction to external fire**

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, such as the thixotropic variant "Triflex ProThan Detail" for connections and vertical surfaces,
- 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 2.1 mm by processing appropriate minimum quantities of material,
- inspections during installation and of the finished product and documentation of the results.

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