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European Technical Assessment

ETA-25/0779
of 08-08-2025

General Part

Technical Assessment Body issuing the European Technical Assessment:

Kiwa Nederland B.V.

Trade name of the construction product

Triflex ProTect

Product family to which the construction product belongs

Liquid applied roof waterproofing kit on the basis of flexible reactive polymethylmethacrylate

Manufacturer

PAC: 03
Triflex GmbH & Co. KG
Karlstraße 59
32423 Minden
Germany

Manufacturing plant(s)

Triflex GmbH & Co. KG
Karlstraße 59
32423 Minden
Germany

This European Technical Assessment contains

9 pages including 2 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

EAD 030350-00-0402
Liquid applied roof waterproofing kits

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Specific parts

1. Technical description of the product

1.1. General

The liquid applied roof waterproofing kit (LAWRK) “Triflex ProTect” is a kit, which consists of the components:

- “Triflex Primer“ (if required)
- “Triflex ProTect”
flexible, reactive polymethylmethacrylate-based liquid applied roof waterproofing membrane and
- “Triflex special fleece”
polyester fleece for reinforcement,

For an adequate adhesion of the waterproofing layer – depending on the type of substrate – a primer may be required. In general the primer belonging to the substrate is given in the manufacturer technical documents. In single cases the manufacturer is responsible to give guidance which pre-treatment / primer is required.

As an assembled system these components form a homogeneous seamless roof waterproofing kit.

Annex A describes the components and the system setup of the roof waterproofing kit “Triflex ProTect”.

2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

2.1. Intended use

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

In the technical file the manufacturer gives information concerning the substrates which the kit is suitable for and how these substrates shall be pre-treated. It comprises all necessary information for the production and the installation and repair of the kit and is deposited at Kiwa.

The levels of use categories are given in Annex A. A part of the essential characteristics was determined with differing testing parameters. The levels of use categories and used testing parameters are given in Annex B.

2.2. Assumed working life

The provisions made in this ETA are based on an assumed working life of 25 years, provided that:

- the kit is properly designed and built,
- installation of the kit is performed as per installation guide, under normal site conditions, by adequately trained installers,
- minor damages are repaired (for example damage caused by impact),
- the kit is properly used and maintained.

These provisions are based upon the current technological state of the art and the available knowledge and experience.

In normal use conditions, the real working life may be considerably longer without major degradation affecting the basic requirements for construction works¹.

The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded as a means for choosing the right product in relation to the reasonable expected working life of the product.

2.3. Manufacturing

The kit is manufactured in accordance with the provisions of the European Technical Assessment using the manufacturing process as laid down in the technical file. It is the responsibility of the manufacturer to ensure that all necessary information on design and installation is submitted to those responsible for design and execution of the construction.

2.4. Packaging, transport and storage

The kit shall be packed, transported and stored in accordance to the manufacturer's technical documentation to prevent damages or deterioration. Damaged products should not be used. It is the responsibility of the manufacturer that adequate information is clearly shown on the package and/or enclosed instruction sheet.

2.5. Design and installation

The levels of use categories and the performance of the kit 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 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 ("Triflex ProTect – summer") or winter ("Triflex ProTect – winter") is to be accomplished,
- ensuring a thickness as stated above of the cured waterproofing
- inspections during installation and of the finished product and documentation of the results.

¹ The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works are subject, as well as on the particular conditions of design, execution, use, and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than the assumed working life.

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

3.1. BWR 2 – Safety in case of fire

Table 3.1.1 – Essential characteristics for BWR 2

Essential characteristic	Performance
External fire performance	See Annex A
Reaction to fire	See Annex A

3.2. BWR 3 – Hygiene, health and environment

Table 3.2.1 – Essential characteristics for BWR 3

Essential characteristic	Performance
Content, emission and/or release of dangerous substances	See Annex A
Resistance to water vapour	See Annex A
Watertightness	See Annex A See Annex B (differing testing parameters)
Resistance to wind loads	See Annex A
Resistance to mechanical damage (perforation)	See Annex A See Annex B (differing testing parameters)
Resistance to fatigue movement	See Annex A See Annex B (differing testing parameters)
Resistance to the effects of low and high surface temperatures	See Annex A See Annex B (differing testing parameters)
Resistance to ageing media (heat and water)	See Annex A See Annex B (differing testing parameters)
Resistance to UV radiation in the presence of moisture	See Annex A See Annex B (differing testing parameters)
Resistance to plant roots	See Annex A
Effects of variation in kit components and site practices	See Annex A
Effect of day joints	See Annex A

3.3. BWR 4 – Safety in use

Table 3.3.1 – Essential characteristics for BWR 3

Essential characteristic	Performance
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 clause 2.1 and the specification of the technical file of the manufacturer are kept.

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

According to the Decision of the Commission of 12th October 1998 (98/599/EC) (OJ L 287 of 24.10.98, p.30) as amended by Decision of the Commission of 8th January 2001 (2001/596/EC) (OJ L 209 of 02.08.2001, p33), the system of assessment and verification of constancy of performance are as follows:

Intended use	Level(s) or class(es)	System
For uses subject to external fire performance regulations	-	3
For uses subject to reaction to fire	E	
All other roof waterproofing uses all other characteristics	-	

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

This ETA is issued for the kit on the basis of data/information deposited at Kiwa Nederland B.V. which identifies the product that has been assessed.

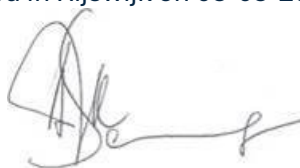
Changes to the product/production process, which could result in this deposited data/ information being incorrect, should be notified to the approval body before the changes are introduced. Kiwa Nederland B.V. will decide whether such changes affect the ETA and if so whether further assessment or alterations to the ETA shall be necessary.

Technical details necessary for the implementation of the AVCP system are laid down in the control plan, in accordance with Section 3.2 of EAD 030350-00-0402.

The control plan shall be handed over by the manufacturer to the notified body (bodies) involved in the assessment and verification of constancy of performance.

The tasks of the notified body are laid down in Section 3.3 of EAD 030350-00-0402.

Issued in Rijswijk on 08-08-2025 By



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Annex A – Classification

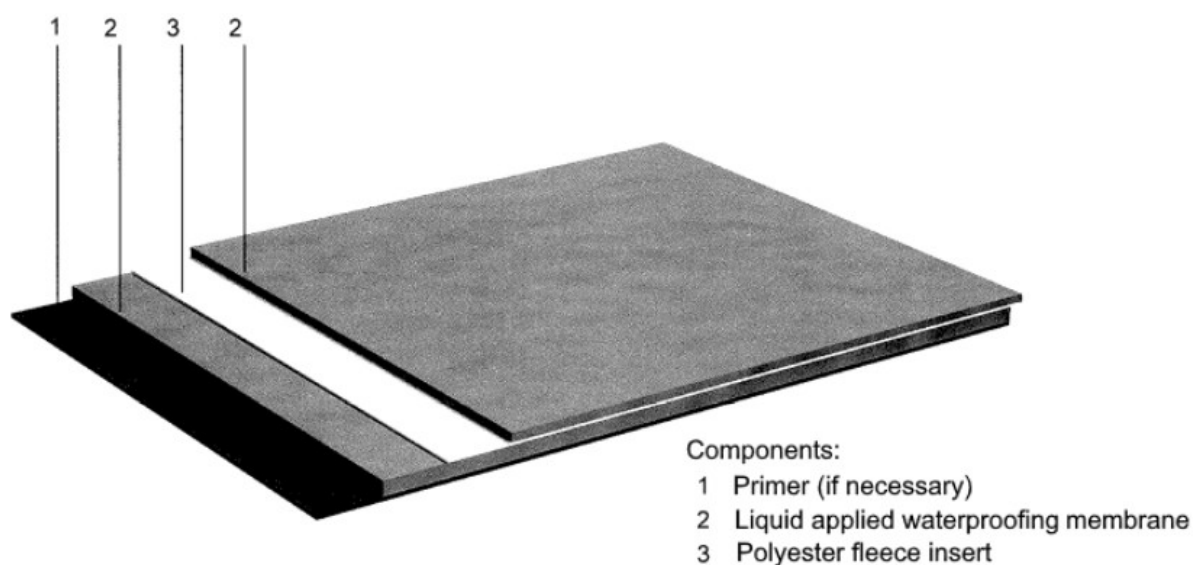


Table A1: Properties of the cured LARWK

Properties of the cured waterproofing kit	
Minimum layer thickness	1.8 mm
Minimum quantity consumed	3,000 g/m ²
Mass per unit area of the polyester fleece	110 g/m ²
processing conditions	-5°C to +45°C

Table A2: Classification of the LAWRK according to the intended uses

Categorisation according to the intended use:	
Working life (durability)	W3 (25 years)
Climatic zones	M and S (moderate and severe)
User loads	P1 to P4 (low to special)
Roof slopes	S1 to S4 (up to 90° - vertical)
Lowest surface temperature	TL4 (-30 °C, extreme low temperatures)
Highest surface temperature	TH4 (+90 °C, severe high temperatures)
Use category regarding dangerous substances	S/W 2

Table A3: Essential characteristics and their performances for BWR 2

Basic Works Requirement 2: Safety in case of fire	
Reaction to fire	Class E
External fire performance	B _{ROOF} (t1), B _{ROOF} (t2), B _{ROOF} (t3), B _{ROOF} (t4)

Table A4: Essential characteristics and their performances for BWR 3

Basic Works Requirement 3: Hygiene, health and the environment	
Content, emission and/or release of dangerous substances - Dangerous substances (carcinogenicity, germ cell mutagenicity and reproductive toxicity) - Leaching substances	The system does not contain any dangerous substances classified as 1A, 1B and/or 2 according to regulation 1272/2008/EC. The system does not contain agents for root penetration.
Resistance to water vapour	$\mu \approx 10,000$
Watertightness	Passed
Resistance to wind loads	≥ 50 kPa for tear-resistant substrates
Resistance to mechanical damage (perforation) - Static indentation - Dynamic indentation	L4 I4
Resistance to fatigue movement	W3
Resistance to the effects of low and high surface temperatures - Static indentation - Dynamic indentation - Crack bridging capability - Delamination strength	TL4, TH4 L4 I4 passed ≥ 50 kPa for tear-resistant substrates
Resistance to ageing media (heat) - Dynamic indentation - Resistance to fatigue movement - Tensile properties	W3, Severe (S) I4 passed performed
Resistance to ageing media (water) - Static indentation - Delamination strength	W3 L4 ≥ 50 kPa for tear-resistant substrates
Resistance to UV radiation in the presence of moisture - Dynamic indentation - Tensile properties	W3, Severe (S) I4 performed
Resistance to plant roots	No penetration of roots
Effects of variation in kit components and site practice - Tensile properties	$T_{min} = -5^{\circ}\text{C}$ $T_{max} = 45^{\circ}\text{C}$ No significant degradation
Effects of day joints	No performance determined

Table A5: Essential characteristics and their performances for BWR 4

Basic Works Requirement 4: Safety in use	
Slipperiness	No performance determined

Table A6: Classification of external fire performance

Classification of external fire performance for following substrates and all other substrates with classification reports for B_{ROOF} (tX) according to EN 13501-5	
B_{ROOF} (t1)	<p>All roof slopes</p> <p>All full-surface wooden underlays with a minimum thickness of 16 mm and joints of maximum 0.5 mm</p> <p>All full-surface non flammable substrates with a minimum thickness of 10 mm</p> <p>With bitumen sheeting laminated expanded polystyrol (EPS) with a minimum thickness of 50 mm and a spatial density of minimum 20 kg/m³ with two layers of bitumen roofing sheeting welded on</p>
B_{ROOF} (t2)	<p>All roof slopes</p> <p>All full-surface flammable and non-flammable substrates with a minimum density of 0.75 times the density of the support plates used in the tests (used support plates: all normative plates according to EN 13501-5, paragraph 6.4.3.3)</p>
B_{ROOF} (t3)	<p>All roof slopes ≤ 70 %</p> <p>All full-surface wooden underlays with a minimum thickness of 12 mm and joints of maximum 0.5 mm</p> <p>All full-surface non flammable substrates with a minimum thickness of 10 mm</p> <p>With bitumen sheeting laminated expanded polystyrol (EPS) with a minimum thickness of 50 mm and a spatial density of minimum 20 kg/m³ with two layers of bitumen roofing sheeting welded on</p>
B_{ROOF} (t4)	<p>All roof slopes ≤ 10 %</p> <p>All full-surface wooden underlays with a minimum thickness of 19 mm</p> <p>All full-surface non flammable substrates with a minimum thickness of 10 mm</p> <p>vapour barrier</p> <p>PIR insulation board with a minimum thickness of 120 mm onto which a self-adhesive 0.6 mm thick bitumen sheeting with a carrier layer</p>

Annex B – Classification with differing testing parameters

Table B1: Classification with differing testing parameters for the essential characteristics for BWR 3

Basic Works Requirement 3: Hygiene, health and the environment	
Content, emission and/or release of dangerous substances	No differing testing parameters
Resistance to water vapour	No differing testing parameters
Watertightness	Passed (tested at 4 bar)
Resistance to wind loads	No differing testing parameters
Resistance to mechanical damage (perforation)	
- Static indentation	L4 (tested with 300 N)
- Dynamic indentation	I4 (tested with 7.5 J)
Resistance to fatigue movement	W3 (tested with 1500 cycles)
Resistance to the effects of low and high surface temperatures	TL4 (tested at -40 °C)
- Static indentation	L4 (tested with 300 N on steel)
- Dynamic indentation	I4 (tested with 7.5 J on steel)
- Crack bridging capability	No differing testing parameters
- Delamination strength	No differing testing parameters
Resistance to ageing media (heat)	W3, Severe (S) (stored at 70 °C for 480 days)
- Dynamic indentation	I4 (tested with 7.5 J)
- Resistance to fatigue movement	passed
- Tensile properties	performed
Resistance to ageing media (water)	W3 (stored for 200 days)
- Static indentation	L4 (tested with 300 N)
- Delamination strength	≥ 50 kPa for tear-resistant substrates
Resistance to UV radiation in the presence of moisture	W3 (exposed to 2000 MJ/m ²)
- Dynamic indentation	I4 on steel
- Tensile properties	performed
Resistance to plant roots	No differing testing parameters
Effects of variation in kit components and site practice	
Tensile properties	No differing testing parameters
Effects of day joints	No differing testing parameters