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European Technical Assessment Body
for construction products



European Technical Assessment

**ETA-16/0981
of 17 July 2025**

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General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Enkolan Abdichtung 1K LF

Product family
to which the construction product belongs

Liquid applied roof waterproofing Kit based on
polyurethane

Manufacturer

ENKE-WERK
Johannes Enke GmbH & Co. KG
Hamburger Straße 16
40221 Düsseldorf
DEUTSCHLAND

Manufacturing plant

ENKE-WERK
Johannes Enke GmbH & Co. KG
Hamburger Straße 16
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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

EAD 030350-00-0402

This version replaces

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Specific part

1 Technical description of the product

The liquid applied roof waterproofing "Enkolan Abdichtung 1K LF" is a kit, which consists of the components:

- Primer (if required).
- Liquid applied roof waterproofing on the basis of a 1-component polyurethane.
- Polyester fleece as reinforcement.

As an assembled system these components form a homogeneous seamless roof waterproofing. The minimum layer thickness of the roof waterproofing applied (with reinforcement) is 2.3 mm.

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's technical documents¹. In single cases the manufacturer is responsible to give guidance which pre-treatment/primer is required.

The liquid applied roof waterproofing "Enkolan Abdichtung 1K LF" does not contain any substances that are intended to inhibit or prevent root penetration (root protection agents)².

The components and the system build-up of the roof waterproofing are given in Annex A1.

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 faced with bitumen membrane) and non-compressible substrates (e.g., steel, concrete).

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

The levels of use categories and the performance of the product 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 liquid applied 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.

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 of roofs	See Annex A2
Reaction to fire	See Annex A2

¹ 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.

² Manufacturer's statement.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content, emission and/or release of dangerous substances	
Substance/s classified as EU-cat. Carc. 1A and/or 1B ^{a)}	None of these raw materials are actively used in the manufacture of the construction product. ^{b)}
Substance/s classified as EU-cat. Muta. 1A and/or 1B ^{a)}	
Substance/s classified as EU-cat. Repr. 1A and/or 1B ^{a)}	
Release scenario regarding BWR 3: S/W 2	
Resistance to water vapour	See Annex A2
Watertightness	See Annex A2
Resistance to wind loads	See Annex A2
Resistance to mechanical damage (perforation)	See Annex A2
Resistance to fatigue movement	See Annex A2
Resistance to the effects of low and high surface temperature	See Annex A2
Resistance to ageing media (heat and water)	See Annex A2
Resistance to UV radiation in the presence of moisture (climatic zone)	See Annex A2
Resistance to plant roots	See Annex A2
Effects of variations in kit components and site practices	See Annex A2
Effects of day joints	See Annex A2

^{a)} In accordance with Regulation (EC) No 1272/2008.

^{b)} Assessment based on the detailed manufacturer's statements.

3.3 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Slipperiness	No performance assessed

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 documents 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 EAD No. 030350-00-0402, the applicable European legal act is: 98/599/EC as amended by Commission Decision 2001/596/EC.

The system to be applied is: 3

In addition, with regard to external fire performance of roofs and reaction to fire for products covered by this EAD 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

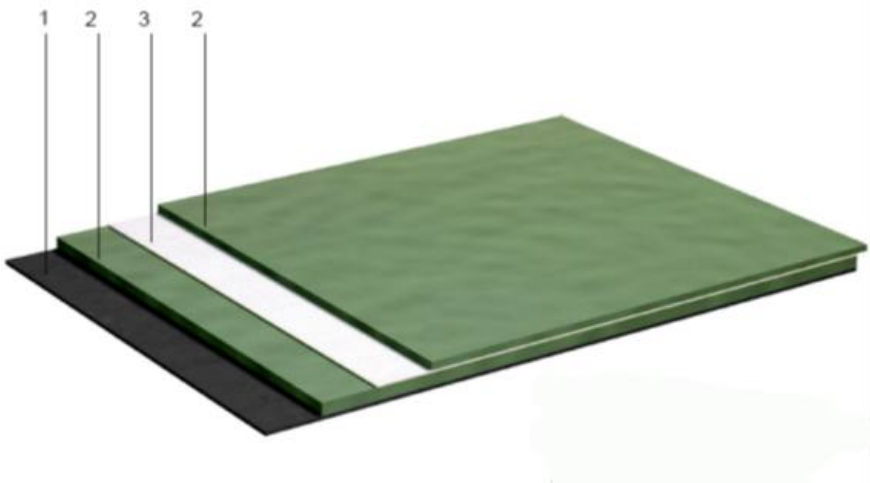
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 17 July 2025 by Deutsches Institut für Bautechnik

Bettina Hemme
Head of Section

beglaubigt:
Hannoun

System built-up:



No.	Description	Consumption / weight per unit area
1	Primer (if necessary)	According to manufacturer technical documents depending on the type of substrate
2	Liquid waterproofing (Enkolan Abdichtung 1K LF)	Total consumption of 1 st + 2 nd layer: ≥ 3.0 kg/m ²
3	Polyester fleece layer (Polyflex fleece)	Nominal weight per unit area: 110 g/m ²

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System built-up

Annex A1

Description of the product			
Minimum thickness of the Waterproofing			2.3 mm
Minimum quantity consumed:			3.0 kg/m²
Roof slope			S1 to S4 (each slope)
Essential characteristics			Performance / Use category
External fire performance of roofs		EN 13501-5	Class B _{ROOF} (t1)*
Reaction to fire		EN 13501-1	Class E
Content, emission and/or release of dangerous substances			See section 3.2
Water vapour diffusion resistance factor			μ ≈ 3200
Watertightness			Watertight
Resistance to wind loads (for tear resistant substrates)			≥ 50 kPa
Resistance to mechanical damage (perforation)	for non-compressible substrates (e.g., concrete/steel) and for compressible substrates (e.g., foam plates faced with bitumen membrane)		P1 to P4 (from low to high/special)
Resistance to fatigue movement			W3
Resistance to the effects of		low surface temperature	TL4 (-30 °C)
		high surface temperature	TH4 (+90 °C)
Working life according to the resistance to ageing media (heat and water)			W3 (25 years)
UV resistance in presence of moisture (climatic zone)			M and S (moderate and severe climates)
Resistance to plant roots			Root resistant
Effects of variations in kit components and site practices (application temperatures)	at +5 °C and at +30 °C	Maximum tensile strength	6 MPa (±20 %)
		Elongation	35 % (±30 %)
		Dynamic indentation	P4
Effects of day joints			≥ 50 kPa
Resistance to slipperiness			No performance assessed

* The classification B_{ROOF} (t1) is valid for the following supporting decks:

- All roof pitches.
- Any wooden continuous deck with a minimum thickness of 16 mm and gaps not exceeding 5 mm.
- Any wooden continuous deck with thermal insulation (EPS, ≥ 50 mm) covered with bitumen sheets with a mass per unit area of 60 g/m².
- Any other roof systems for which classification documents for B_{ROOF} (t1) according EN 13501-5 are available.

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Description, levels of use categories and performances of the product

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;
- ensuring a thickness of the cured waterproofing of at least 2.3 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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Intended use
Specifications for the installation

Annex B