

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-16/0981
of 13 March 2020

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

Enkolan Abdichtung 1K LF

Product family
to which the construction product belongs

Liquid applied roof waterproofing Kits 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
40221 Düsseldorf

This European Technical Assessment
contains

7 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

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-16/0981 issued on 7 February 2017

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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 but not part of these ETA)
- liquid applied roof waterproofing on the basis of a 1-component polyurethane "Enkolan Abdichtung 1K LF"
- 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's technical documents¹. In single cases the manufacturer is responsible to give guidance which pre-treatment/primer is required.

The minimum layer thickness of the roof waterproofing applied is 2.3 mm

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

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).

The components and the system build-up of the roof waterproofing "Enkolan Abdichtung 1K LF" are given in Annex A.

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

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 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.

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.

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
Content of dangerous substances	
Substance/s classified as EU-cat. Carc. 1A and/or 1B ^{a)}	The kit does not contain these dangerous substances. ^{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 mechanical damage (perforation)	See Annex A, Levels of use categories
Resistance to plant roots	See Annex A

^{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
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 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 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

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 13 March 2020 by Deutsches Institut für Bautechnik

BD Dipl.-Ing. Andreas Kummerow
Head of Department

beglaubigt:
Gnamou



Components:

1. Primer (if necessary)
2. Waterproofing "Enkolan Abdichtung 1K LF"
3. polyester fleece

Applicable to the roof waterproofing "**Enkolan Abdichtung 1K LF**"

Minimum layer thickness		2.3 mm
minimum quantity consumed:		3.0 kg/m ²
<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 substrates and non-compressible substrates
		P1 to P4 (from low to high)
Roof slope		S1 to S4 (each roof pitch)
Lowest surface temperature		TL4 (-30 °C)
Highest surface temperature		TH4 (90 °C)
Use category related to BWR 3:		S/W 2
<u>Performance of the product:</u>		
External fire performance	EN 13501-5	B _{Roof} (t ₁)*
Reaction to fire	EN 13501-1	E
Water vapour diffusion resistance factor μ		$\mu \approx 3200$
Watertightness		pass
Statement on dangerous substances		see section 3.2
Resistance to plant roots		resistant
Resistance to wind loads		≥ 50 kPa
Resistance to slipperiness		no performance assessed

* Class **B_{Roof} (t₁)**

The classification is valid for the following supporting decks:

- all slope
- any wooden continuous deck with a minimum thickness of 16 mm and gaps not exceeding 5 mm
- wooden continuous deck with insulation (EPS, ≥ 50 mm) covered with bitumen sheets with a mass per unit of 60 g/m²

Any other roof systems for which classification documents for B_{Roof} (t₁) according EN 13501-5 are available.

Enkolan Abdichtung 1K LF
ENKE-WERK

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

Annex A

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.

Enkolan Abdichtung 1K LF ENKE-WERK	Annex B
Intended use Specifications	