

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-16/0484
of 17 June 2016

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

KRAFT Total Proof PU-S

Product family
to which the construction product belongs

Liquid applied roof waterproofing on the basis of
polyurethane

Manufacturer

Druckfarben Hellas A.E.B.E
Megaridos Avenue
Kallistriri area
19300 ASPROPYRGOS
GRIECHENLAND

Manufacturing plant

Produktionsanlage 193

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

Guideline for European technical approval of "Liquid
applied roof waterproofing kits", ETAG 005 Part 6:
"Specific stipulations for kits based on polyurethane",
used as European Assessment Document (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 "KRAFT Total Proof PU-S" is a kit, which consists of the components:

- Primer (if required),
- liquid applied roof waterproofing on the basis of a one-component reactive polyurethane,
- polyester fleece "KRAFT Total Proof Fiber" 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 documents¹. In single cases the manufacturer is responsible to give guidance which pretreatment/primer is required.

Depending on the levels the minimum layer thickness of the roof waterproofing applied is 1.6 mm respectively 2.9 mm.

As an assembled system these components form a homogeneous seamless roof waterproofing. The components and the system build-up of the roof waterproofing "KRAFT Total Proof PU-S" are given in Annex A1.

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.

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 A1.

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of working life of the product of 10 respectively 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 B1 and the installation instructions of the manufacturer stated in the technical file.

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 Mechanical resistance and stability (BWR 1)

Not applicable

3.2 Safety in case of fire (BWR 2)

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

3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Water vapour permeability	See Annex A1
Watertightness	See Annex A1
Release of dangerous substances	The product does not contain dangerous substances specified in TR 034 (Version March 2012)
Resistance to mechanical damage (perforation)	See Annex A1, Levels of use categories
Resistance to plant roofs	See Annex A1

3.4 Safety and accessibility in use (BWR 4)

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

3.5 Protection against noise (BWR 5)

Not applicable

3.6 Energy economy and heat retention (BWR 6)

Not applicable

3.7 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

3.8 General aspects

The verification of durability and serviceability is part of testing the essential characteristics. Durability and serviceability is only ensured if the specifications of intended use according to Annex B1 and the specifications of the technical file of the manufacturer are kept.

English translation prepared by DIBt

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

According to Decision of the Commission of 12 October 1998 (98/599/EC) (OJ L 287 of 24.10.1998, p. 30), as amended by Decision of the Commission of 8 January 2001 (2001/596/EC) (OJ L 209 of 02.08.2001, p. 33), the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use	Level or class	System
Liquid applied roof waterproofing kits	For uses subject to external fire performance regulations	B _{ROOF} (t1)	3
	For uses subject to reaction to fire	E	3
	All other roof waterproofing uses (all other characteristics)	—	3

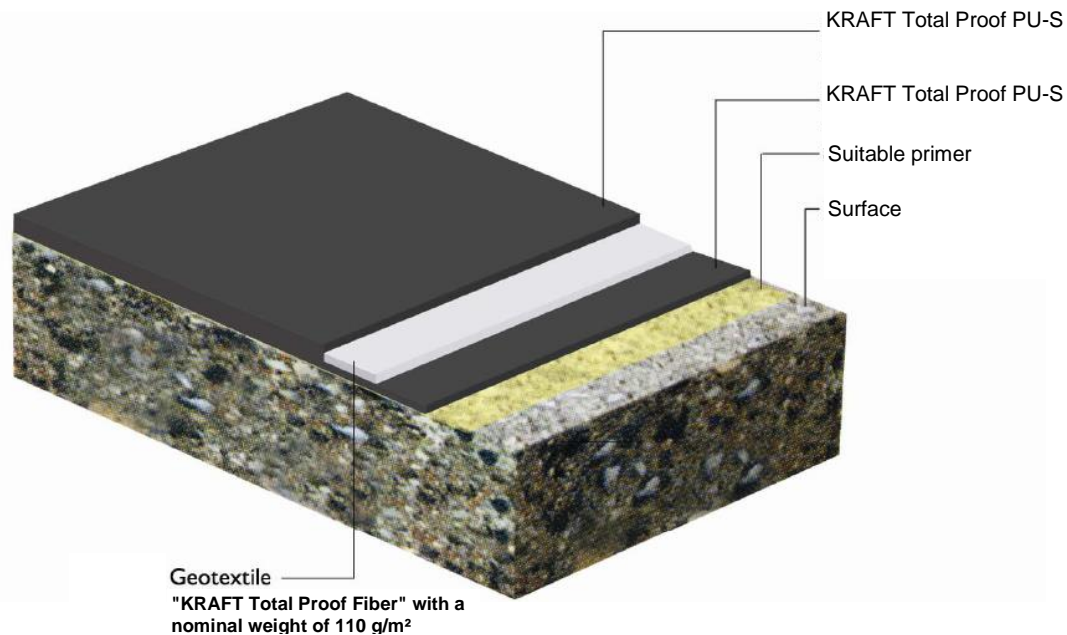
5 Technical details necessary for the implementation of the AVCP system, as provided for the applicable EAD

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

Issued in Berlin on 17 June 2016 by Deutsches Institut für Bautechnik

Andreas Kummerow
p. p. Head of Department

beglaubigt:
Gnamou



Applicable to the roof waterproofing "KRAFT Total Proof PU-S"

Minimum layer thickness	1.6 mm	2.9 mm
minimum quantity consumed:	2.4 kg/m ²	4.1 kg/m ²
<u>Levels of use categories according to ETAG 005 with relation to:</u>		
Working life:	W2 (10 years)	W3 (25 years)
Climatic zones	M and S (moderate and severe climatic)	
Resistance to mechanical damage (perforation) (compressible and non-compressible substrates)	P1 to P3 (from low to normal)	P1 to P4 (from low to high)
Roof slope	S1 to S4 (from < 5° to > 30°)	
Lowest surface temperature	TL3 (-20 °C)	TL4 (-30 °C)
Highest surface temperature	TH4 (90 °C)	
Use category related to BWR 3:	I/A 3, S/W 2	
<u>Performance of the product:</u>		
External fire performance	EN 13501-5	F _{ROOF}
Reaction to fire	EN 13501-1	E
Water vapour diffusion resistance factor μ	μ ≈ 1830	
Watertightness	pass	
Statement on dangerous substances	see section 3.3	
Resistance to plant roots	no performance determined	
Resistance to wind loads	≥ 50 kPa	
Resistance to slipperiness	no performance determined	

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System built up and classification

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 1.6 mm respectively 2.9 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

Annex B