

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-13/1043**  
**of 20 March 2014**

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

FRANKOSIL 1K

Product family  
to which the construction product belongs

Liquid applied roof waterproofing on the basis of a one  
component hybrid polyurethan

Manufacturer

FRANKEN-Systems GmbH  
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97318 Kitzingen  
DEUTSCHLAND

Manufacturing plant

FRANKEN-Systems GmbH  
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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 1: -  
General and Part 6: Specific stipulations for kits based on  
polyurethane, Edition March 2000, Revision 2004, 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 "FRANKOSIL 1K" is a kit, which consists of the components:

- Primer, only on mineral substrates, e.g. concrete
- liquid applied roof waterproofing "FRANKOSIL 1K" on the basis of a one component hybrid polyurethane
- 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 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 2.5 mm respectively 3.1 mm.

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

The components and the system build-up of the roof waterproofing "FRANKOSIL 1K" 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 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.

<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 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, except: - VOC: npd Naphta: npd 2-Methoxypropylacetat: npd 2-(2H-Benzotriazol-2-yl)-6-dodecyl-4-methylphenol: npd Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate: npd Octyl-3,5-di-tert-butyl-4-hydroxy-hydrocinnamate: npd
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.

**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 24.10.98, 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(s)	Level or class	System
Liquid applied roof waterproofing kits	For uses subject to external fire performance regulations	B <sub>ROOF</sub> (t1)	3
	For uses subject to reaction to fire	E	3
	All other roof waterproofing uses (all other characteristics)	—	3

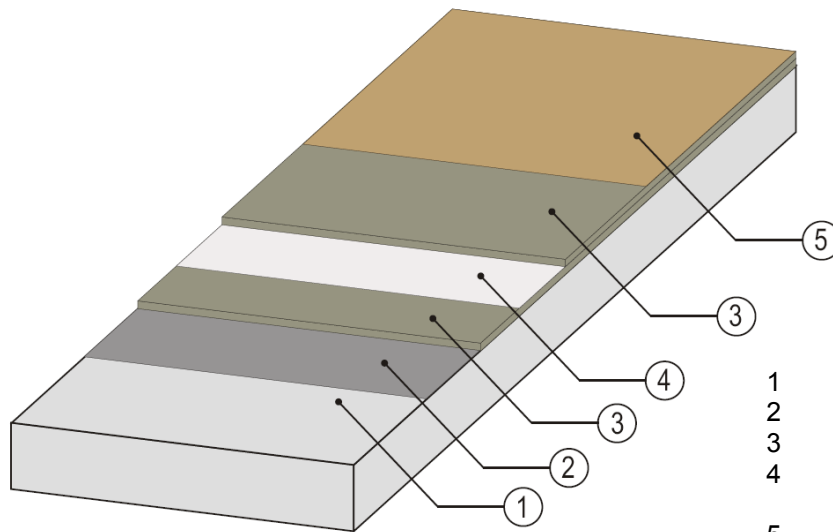
**5 Technical details necessary for the implementation of the AVCP system, as provided for the applicable EAD**

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 20 March 2014 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe  
p. p. President

*beglaubigt:*  
Hemme



- 1 Substrate
- 2 Primer, if required
- 3 Liquid synthetic material
- 4 Polyester fleece with a nominal weight of 165 g/m<sup>2</sup>
- 5 Coloured top coat (optional)

Applicable to the roof waterproofing "FRANKOSIL 1K"

Minimum layer thickness	2.5 mm	3.1 mm	
minimum quantity consumed:	3.5 kg/m <sup>2</sup>	4.5 kg/m <sup>2</sup>	
<u>Levels of use categories according to ETAG 005 with relation to:</u>			
Working life:	W2 (10 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	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	B <sub>ROOF</sub> (t <sub>1</sub> )*	F <sub>ROOF</sub>
Reaction to fire	EN 13501-1	E	F
Water vapour diffusion resistance factor μ	μ ≈ 520		μ ≈ 580
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		

\* Class B<sub>ROOF</sub> (t<sub>1</sub>)

The classification is valid for the following supporting decks:

- all roof pitches > 0°
- any non-combustible continuous deck with a minimum thickness of 10 mm

Any other roof systems for which classification documents for B<sub>ROOF</sub> (t<sub>1</sub>) according EN 13501-5 are available.

**FRANKOSIL 1K**  
FRANKEN-Systems GmbH

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

Annex A1

### 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 2.5 mm respectively 3.1 mm by processing appropriate minimum quantities of material,
- inspections during installation and of the finished product and documentation of the results.

**FRANKOSIL 1K**  
FRANKEN-Systems GmbH

**Intended use**  
Specifications

Annex B1