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European Technical Assessment

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General Part

Technical Assessment Body issuing the European Technical Assessment:

Kiwa Nederland B.V., Sir Winston Churchillaan 273, 2288 EA Rijswijk, www.kiwa.nl

Trade name of the construction product

KEMPEROL LF / KEMPEROL 1K LF

Product family to which the construction product belongs

Liquid applied roof waterproofing kit

Manufacturer

KEMPER SYSTEM GmbH und Co. KG
Holländische Straße 32-36
34246 Vellmar
Germany

Manufacturing plant(s)

KEMPER SYSTEM GmbH und Co. KG
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This European Technical Assessment contains

6 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 version August 2018, "Liquid applied roof waterproofing kits"

This version replaces

ETA 20/0404 of 01/02/2022

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Specific parts

1. Technical description of the product

The liquid applied roof waterproofing kit “*KEMPEROL LF / KEMPEROL 1K LF*” is a kit, which consists of the components

- Primer “*KEMPERTEC EP 5*” two component primer based on epoxy resin, fast curing and solvent free
- Fleece “*KEMPEROL 165 fleece*” which is a polyester fleece with a grammage of at least 148 g/m²
- Fleece “*KEMPEROL 120 fleece*” which is a polyester fleece with a grammage of at least 108 g/m²
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- water proofing membrane “*KEMPEROL LF / KEMPEROL 1K LF*” based on a single component waterproofing membrane based on SMP, solvent free.

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

The minimum applied layer thickness of the roof waterproofing membrane with *KEMPEROL 165 fleece* is 2.5 mm, with *KEMPEROL 120 fleece* 2.4 mm.

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

The components and the system build-up of the roof waterproofing kit “*KEMPEROL LF*” are given in annex A.

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

The product 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 product 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.

The verification 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 specification and conditions given in annex B and the installation of the manufacture stated in the technical file.

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 A
Reaction to fire	See annex A

3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Water vapour permeability	See annex A
Water tightness	See annex A
Release of dangerous substances	No performance assessed
Resistance to mechanical damage (perforation)	See annex A, use categories
Resistance to plant roots	See annex A
Resistance to wind loads	See annex A
Resistance to ageing media	See annex A
Resistance to UV radiation in the presence of moisture	See annex A

3.4 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Slipperiness	See annex A

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 B 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 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, p33), 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 uses(s)	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	
	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

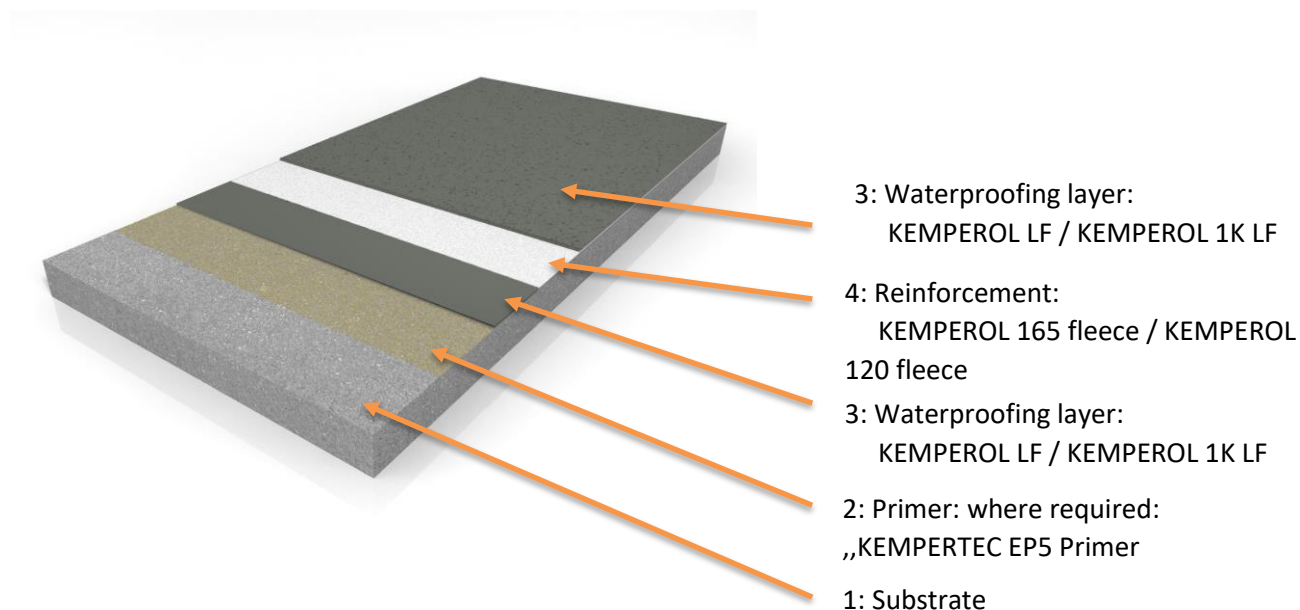
Technical details necessary for the implementation of the AVCP system are laid down on the control plan deposited at Kiwa.

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Ron Scheepers
Kiwa Nederland B.V.

Annex A



Classification of the roof waterproofing system “KEMPEROL LF / KEMPEROL 1K LF”

Minimum consumption	3.0 kg/m ² with KEMPEROL 165 fleece	3.0 kg/m ² with KEMPEROL 120 fleece
Minimum layer thickness	2.5 mm	2.4 mm
<u>Classification to use categories according to EAD 030350-00-0402:</u>		
Working life (resistance to ageing (water and heat) & resistance to UV radiation in presence of moisture)	W3 (25 years)	
Climatic zones	M and S (moderate and severe climate)	
Resistance to mechanical damage (perforation)	Compressible substrate: P1 to P3 (from low to normal) Non-compressible substrate: P1 to P4 (from low to special)	
Roof slope	S1 to S4 (each roof slope)	
Lowest surface temperature	TL4 (-30 °C)	
Highest surface temperature	TH4 (90 °C)	
Use category regarding BWR 3	S/W 2	
<u>Performances of the product:</u>		
Reaction to fire	EN 13501-1	Class E
External fire performance	EN 13501-5	B _{ROOF} (t1)
Water vapour diffusion resistance factor	μ = 753	
Water tightness	passed	
Release of dangerous substances	See chapter 3.3	
Root resistance	No performance determined	
Resistance to wind loads	≥ 50 kPa for tear-resistant substrates	
Slipperiness	No performance determined	

The classification is valid for the following supporting decks:

- all roof pitches > 0°

- any non-combustible continuous decks with a minimum of 10 mm

Any other roof system for which classification documents for B_{ROOF}(t1) according EN 13501-5 is available.

Annex B

Installation

The levels of use categories and the performance 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 as components of the kit,
- installation with required tools and adjuvants,
- precautions during installation,
- inspecting the roof surface for cleanliness and correct preparation,
- inspecting compliance with suitable weather and curing conditions,
- ensuring a thickness of the waterproofing of at least 2.4 mm with KEMPEROL 120 fleece and 2.5 mm with KEMPEROL 165 fleece by processing of appropriate minimum quantities of material,
- inspections during installation and of the finished product and documentation of the results