



European Technical Assessment

**ETA-19/0536
of 08/01/2020**

(English translation prepared by CSTB – Original version in French language)

GENERAL PART

Technical Assessment Body issuing the European Technical Assessment:

Centre Scientifique et Technique du Bâtiment (CSTB)

Trade name of the construction product:

BMI Sealoflex Ultima

Product family to which the construction product belongs:

Product Area Code: 03
Liquid applied roof waterproofing on the basis on polyurethane polymers

Manufacturer:

BMI Group Management UK Ltd
20 Air Street
5th Floor
London
W1B 5 AN
England

Manufacturing plant(s):

Plant 1

This European Technical Assessment contains:

7 pages including 1 Annex(es) 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:

European Technical Approval Guideline No 005 (ETAG 005), edition 2004, used as European Assessment Document (EAD)

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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SPECIFIC PART

1. Technical description of the product

The liquid applied roof waterproofing " BMI Sealoflex Ultima " is a kit which consists of a liquid synthetic material of reactive polyurethane single component, and a reinforcement of non woven polyester.

Application is made in 3 steps without drying time (wet on wet application) :

- One layer of "Sealoflex Ultima Waterproofing Coating" (2,1 kg/m²)
- One layer of reinforcement "Sealoflex Ultima Reinforcing Fabric"
- One layer of " Sealoflex Ultima Waterproofing Coating " (1,1 kg/m²)

For an adequate adhesion of the waterproofing layer, the substrate may require a primer:

| Admitted substrates | Primers |
|---|------------------------------------|
| Concrete | Sealoflex Ultima Concrete Primer |
| Steel, Stainless steel | Sealoflex Ultima Metal Etch Primer |
| Wood-based panel: particleboard, plywood, OSB | Sealoflex Ultima EP1 Primer |
| Expanded polystyrene panel | none |
| Polyurethane or polyisocyanurate panel with kraft or aluminium facing | none |
| SBS or APP bitumen waterproofing sheets with metallic protection | none |
| SBS or APP bitumen waterproofing sheets with mineral protection, sand finish or no protection | Sealoflex Ultima Bitumen primer |
| PVC-P based waterproofing membranes | Sealoflex Ultima EP1 Primer |
| TPO based waterproofing membranes | Sealoflex Ultima TPO Primer |
| Ceramics tiles | none |

The kit " BMI Sealoflex Ultima " is UV resistant and directly accessible by pedestrians.

The minimum layer thickness of the roof waterproofing applied is 2,1 mm.

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

The liquid applied roof waterproofing for the waterproofing of roof surfaces against penetration of atmospheric water.

The roof waterproofing shows certain levels of performance according to ETAG 005 which facilitates the use taking account of national requirements.

In the manufacturer's technical dossier (MTD) to this European technical assessment (ETA) the manufacturer gave information concerning the concrete substrate which the roof waterproofing is suitable for and on how these substrates shall be pre-treated.

The verifications which are based on this ETA give reason for the assumption of an intended working life of the roof waterproofing of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works

3. Performances of the product and references to the methods used for their assessment

Performances of the liquid applied waterproofing kit, related to the basic requirements for construction works (hereinafter BWR), were determined according to the ETAG 005.

These performances, given in the following paragraphs, are valid as long as the components are the ones described in § 1 and Annexe 1 of this ETA.

3.1 Mechanical resistance and stability (BWR 1)

Not relevant.

3.2 Safety in case of fire (BWR 2)

Reaction to fire: E

External fire performance: Broof(t1) ; Broof(t4)

3.3 Hygiene, health and the environment (BWR 3)

3.3.1 Water vapour permeability

Water vapour permeability factor (μ) is 1780.

3.3.2 Watertightness

Kit is watertight according to Technical Report EOTA 003.

3.3.3 Effects of highest and lowest surface temperatures

The resistance to mechanical damage is P2 to P4 depending on the nature of the substrate (cf. table on annex 1/2) at the lowest surface temperature TL4 and the highest surface temperature TH4.

3.3.4 Resistance against ageing

Performance and tensile properties, after exposure W3 of accelerated ageing by heat, artificial weathering and accelerated ageing by hot water are kept.

3.3.5 Resistance to plant roots

The kit is resistant to root penetration.

3.3.6 Release of dangerous substances

According to Technical Report EOTA n° 034, the product does not contain dangerous substance.

3.4 Safety and accessibility in use (BWR 4)

3.4.1 Resistance to wind load

Bond strength on concrete substrate is > 50 kPa.

3.4.2 Resistance to slipperiness

No performance determined.

3.5 Protection against noise (BWR 5)

No performance determined.

3.6 Energy economy and heat retention (BWR 6)

No performance determined.

3.7 Sustainable use of natural resources (BWR 7)

No performance determined.

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

According to Decision 97/556/EC (Decision of the Commission of 14 July 1997, L 229 of 20.8.1997, p. 15), as amended by Decision 2001/596/EC (Decision of the Commission of 8 January 2001, L 209 of 2.8.2001, p. 33), the systems of AVCP given in the following table apply:

| Product | Intended uses | Level or Class | System |
|--|---------------------------------|----------------|--------|
| Liquid applied roof waterproofing kits | For all roof waterproofing uses | - | 3 |

The systems of AVCP are described in Annex V of Regulation (EU) No 305/2011, as amended by Delegated Regulation (EU) No 568/2014.

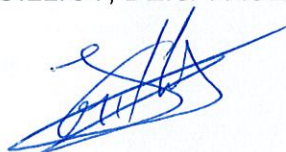
5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

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

Issued in Marne-la-Vallée on 08/01/2020

by

Stephane GILLIOT, DEIS/ FACET of the CSTB



Applicable to roof waterproofing " BMI Sealoflex Ultima ":

| | |
|--|-------------------------------------|
| Minimum layer thickness | 2,1 mm |
| Minimum quantity consumed | 3,2 kg/m ² |
| <u>Levels of use categories according to ETAG 005 with relation to :</u> | |
| Working life | W3 |
| Climatic zones | S |
| Imposed loads | Non compressive substrate P4 |
| | Compressive substrate P2 |
| Roof slope | S1 à S4 |
| Lowest surface temperature | TL4 |
| Highest surface temperature | TH4 |
| <u>Performance du kit :</u> | |
| External fire performance | Broof(t1) ; Broof(t4) |
| Reaction to fire | Class E |
| Water vapour diffusion resistance factor | $\mu \approx 1780$ |
| Watertightness | Watertight |
| Statement on dangerous substances | Does not contain any |
| Resistance to plant roots | Resistant to plant roots |
| Resistance to wind loads | ≥ 50 kPa on concrete substrate |
| Resistance to slipperiness | No performance assessed |

| | |
|---|--|
| Roof waterproofing " BMI Sealoflex Ultima " <i>Liquid applied roof waterproofing on the basis of polyurethane</i> | ANNEX 1 (1/2) of ETA-19/0536 |
| Characteristics of " BMI Sealoflex Ultima " | |

Installation

The fitness for use of the roof waterproofing can be assumed only, if the processing is carried out according to the processing instructions stated in the MTD by the manufacturer, in particular taking account of the following points:

- processing by appropriately trained personnel,
- processing of only those components which are a marked component of the kit,
- processing with the required tools and adjuvants,
- precautions during processing,
- inspecting the roof surface for cleanliness and correct preparation and applying the primer before applying the roof waterproofing,
- inspecting compliance with suitable weather and curing conditions,
- ensuring a thickness of the waterproofing by processing of appropriate minimum quantities of material, of at least: 2,1 mm
- inspections during installation and of the finished roof waterproofing and documentation of the results.

| | |
|--|---|
| <p>Roof waterproofing “ BMI Sealoflex Ultima ” <i>Liquid applied roof waterproofing on the basis of polyurethane</i></p> | <p>ANNEX 1 (2/2) of ETA-19/0536</p> |
| <p>Intended use of “ BMI Sealoflex Ultima ”</p> | |

