Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

**European Technical Assessment Body for construction products**

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# European Technical Assessment ETA-24/0422 of 14 June 2024

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 | "Isolierfolie Valutect" |
| Product family to which the construction product belongs | Special covering |
| Manufacturer | Valutect Umwelttechnik Handels GmbH<br>Schemmannstraße 51<br>22359 Hamburg<br>DEUTSCHLAND |
| Manufacturing plant | |
| This European Technical Assessment contains | 6 pages 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 | 0310-00-0605 |

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## Specific part

### 1 Technical description of the product

This European Technical Assessment applies to the product "Isolierfolie Valutect". The "Isolierfolie Valutect" is a three- or five-ply composite foil with layers of polyethylene (PE), aluminum and optionally raw paper and serves as a barrier against pollutants that may originate from contaminated buildings. The composite films are structured as shown in Table 1.

**Table 1:** Possible superstructures for the product "Isolierfolie Valutect"

| | **3-ply** | **5-ply** |
|---|---|---|
| **Layer structure** | | Raw paper |
| | Polyethylene | Polyethylene |
| | Aluminium | Aluminium |
| | Polyethylene | Polyethylene |
| | | Raw paper |
| **Total thickness** | 166 µm | 298 µm |
| **Grammage** | 162 g/m² | 270 g/m² |

After direct adhesion to walls, ceilings and/or floors, the product is generally covered by various surface layers (e.g. wallpapers, floor coverings, tiles, plasterboards) which are not covered by this assessment.

Bonding is carried out exclusively with the adhesives listed in Table 2.

**Table 2:** Adhesives prescribed for the use of the “Valutect insulating film”

| | |
|---|---|
| For walls and ceilings | "Kiesel Okatmos star 100" |
| | "MAPEI Ultrabond Eco V4 SP" |
| | "Schönox Emiclassic" |
| | "Thomsit K 188 E" |
| For floors | "Kiesel Okatmos star 100" |
| | "MAPEI Ultrabond Eco V4 SP" |
| | "Schönox Emiclassic" |
| | "Thomsit K 188 E" |
| | "Wakol D3360 VersaTack" |

The European Technical Assessment has been issued for the products on the basis of agreed data and information, deposited at Deutsches Institut für Bautechnik. The European Technical Assessment is only valid for the products which correspond to the deposited data and information.

## 2 Specification of the intended use in accordance with the applicable European Assessment Document

The product "Isolierfolie Valutect" is intended to be used as a diffusion barrier for pollutants in contaminated buildings during building renovation.

The product is intended for use on walls, ceilings and floors. It can be used on various substrates such as mortar, masonry, concrete, plasterboard, wood-based materials, etc. that have been prepared in accordance with the manufacturer's instructions and are ready for installation.

The performances in section 3 can only be assumed if the product "Isolierfolie Valutect" is used in accordance with the manufacturer's instructions, with the adhesives intended for bonding to walls and ceilings or floors (see table 2) inside buildings (interiors) where it is protected from the effects of the weather. Finally, the "Isolierfolie Valutect" can be covered with fillers and/or surface coverings such as wallpaper, floor coverings, tiles, plasterboard.

The test and assessment methods on which this ETA is based lead to the assumption of a service life of the product "Isolierfolie Valutect" of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, 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.

## 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 |
|---|---|
| Reaction to fire<br>For structures in accordance with section 1 | Class E*<br>acc. to EN 13501-1:2018 |

* glued with adhesive (max. 250 g/m²) on substrates made of plasterboard or on substrates of classes A1 or A2 - s1, d0 acc. EN 13501-1:2018, thickness ≥ 12 mm, density ≥ 525 kg/m³

### 3.2 Hygiene, health and the environment (BWR 3)

| Essential characteristic | Performance |
|---|---|
| Content, emission and/or release of dangerous substances | |
| Substances, classified as Carc. 1A/1B[a)] | None of these raw materials are actively used in the manufacture of the construction product.[b)] |
| Substances, classified as Muta. 1A/1B[a)] | |
| Substances, classified as Acute Tox. 1, 2, 3; Repr. 1A/1B; STOT SE 1 and STOT RE 1[a)] | |

| **Essential characteristic** | **Performance** | | |
|---|---|---|---|
| SVOC and VOC[c)] | The product was tested and evaluated for emission of dangerous substances (according to EN 16516:2017) using the loading factor L = 1.0 m²/m³ for walls. | | |
| | | 3 days | 28 days |
| | Carcinogens (Cat. 1A/1B) | < 0.01 mg/m³ | < 0.001 mg/m³ |
| | TVOCspez | < 10 mg/m³ | < 1.0 mg/m³ |
| | TSVOC | | < 0.1 mg/m³ |
| | TVOC without NIK | | < 0.1 mg/m³ |
| | R-value | | < 1 |
| Release scenarios regarding BWR 3: IA1 and IA2 | | | |
| Gas permeability (oxygen) (3-ply) | < 1.0 cm³/(m²*d*bar) | | |
| Radon diffusion (3-ply) | < 5.25 * $10^{-15}$ m²/s | | |
| Tensile properties (5-ply) | Maximum tensile force longitudinal / transverse | 500 N/50 mm / 700 N/50 mm | |
| | Elongation longitudinal / transverse | 7 % / 3 % | |
| Tensile properties after artificial ageing (5-ply) | 336 h UV + 168 d at 70 °C | | |
| | Maximum tensile force longitudinal / transverse | 450 N/50 mm / 650 N/ mm | |
| | Elongation longitudinal / transverse | 7 % / 3 % | |
| Resistance to tearing (5-ply) | longitudinal / transverse | 250 N / 200 N | |
| Impact resistance | No performance assessed | | |
| Bond strength (5-ply) | 0.4 N/mm² (concrete support substrate, glued with "Schönox Emiclassic") | | |
| Water vapour transmission [µ-factor] (5-ply) | ≈ 9 * $10^{6}$ | | |

a) According to regulation (EG) Nr. 1272/2008.
b) Assessment was based on a manufacturer declaration detailing the product composition.
c) Detailed performance data according to test report.

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

In accordance with EAD No. 030310-00-0605, the applicable European legal act is: 1999/90/EC, amended by 2001/596/EC.

The system to be applied is: 3

## 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 14 June 2024 by Deutsches Institut für Bautechnik

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*beglaubigt:*
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