

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-22/0560**  
**of 26 April 2023**

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

SensFloor® Underlay

Product family  
to which the construction product belongs

Underlays

Manufacturer

Future-Shape GmbH  
Altlaufstraße 34  
85635 Höhenkirchen-Siegertsbrunn  
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

EAD 190010-00-0502

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## Specific Part

### 1 Technical description of the product

This European Technical Assessment applies to the textile-based underlay "SensFloor® Underlay" with capacitive proximity sensors and electronic modules for the recognition of movement and gait data, hereinafter referred to as underlay.

The underlay is a multilayer composite material and consists of

- the back layer made of aluminium foil,
- the middle layer of polyester needle felt,
- a polyamide hotmelt adhesive film,
- the top layer of metallized polyester nonwoven strips for the power supply and as a sensor surface and
- the integrated radio modules (2 – 6 pieces per m<sup>2</sup>).

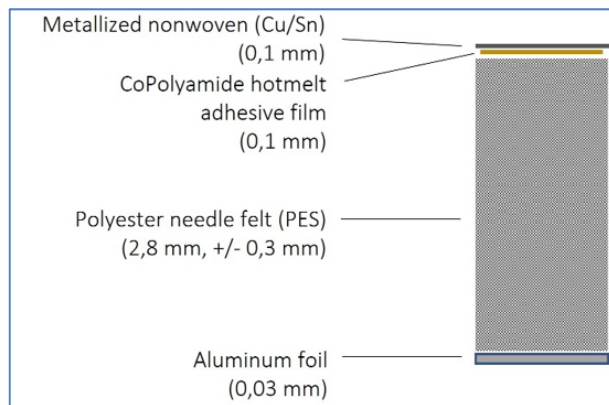


Figure 1: Schematic structure of "SensFloor® Underlay"

The total thickness of the underlay is 2.8 mm ( $\pm 0,4$  mm) and the total area weight is 700 g/m<sup>2</sup> ( $\pm 40$  g/m<sup>2</sup>).

The underlay is fixed on mineral substrates with a double-sided adhesive foil (D-Tack Extralay). A primer is used for surface pretreatment (D-Tack Remove).

The European Technical Assessment has been issued for the products on the basis of agreed data and information, deposited with Deutsches Institut für Bautechnik. The European Technical Assessment applies only to products corresponding to this agreed data/information.

The evaluation of the functionality of the radio modules is not part of this European Technical Assessment.

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

The underlay is installable beneath any kind of flooring inside buildings. It is used to recognize movement and gait data, to improve impact sound and to provide acoustic decoupling.

The performance according to section 3 only applies if the underlays are installed according to the manufacture's installation instructions and if they are protected from precipitation, wetting or weathering in built-in state and during transport, storage and installation.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the underlay mats "SensFloor® Underlay" and 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.

**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 testing in accordance with EN ISO 11925-2:2020	Class E* in accordance with EN 13501-1:2019
* bonded with D-Tack Remove and D-Tack Extralay on substrates of class A1 or A2 - s1,d0 according to EN 13501-1:2019 with a bulk density $\geq 1350 \text{ kg/m}^3$ and a minimum thickness of 6 mm	

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

Essential characteristic	Performance		
<b>Content, emission and/or release of dangerous substances</b>			
Substances, classified as Carc. 1A/1B <sup>a)</sup>	None of these raw materials are actively used in the manufacture of the construction product. <sup>b)c)</sup>		
Substances, classified as Muta. 1A/1B <sup>a)</sup>			
Substances, classified as Acute Tox. 1, 2, 3; Repr. 1A/1B; STOT SE 1 and STOT RE 1 <sup>a)</sup>			
SVOC and VOC	The product "SensFloor® Underlay" was tested for the emission of dangerous substances (in accordance with EN 16516) using the loading factor L = 0.4 m <sup>2</sup> /m <sup>3</sup> (for floorings) and was therefore assessed: <sup>d)</sup>		
		3 days	28 days
	Carzinogens (Cat. 1A/1B)	< 0.01 mg/m <sup>3</sup>	< 0.001 mg/m <sup>3</sup>
	TVOCspez	< 10 mg/m <sup>3</sup>	< 1.0 mg/m <sup>3</sup>
	TSVOC		< 0.1 mg/m <sup>3</sup>
	TVOC without NIK (2021)		< 0.1 mg/m <sup>3</sup>
	R-value		< 1
Release scenario regarding BWR 3: IA2			
<p>a) In accordance with Regulation (EC) No 1272/2008.</p> <p>b) Active use is the targeted use of substances to achieve specific product properties. Substances that are present as impurities and/or as a secondary component in the product are therefore not to be regarded as "actively used".</p> <p>c) Assessment based on the detailed manufacturers' statements on dangerous substances.</p> <p>d) Statement according to test report.</p>			

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

In accordance with EAD No. 190010-00-0502 the applicable European legal act is: 2000/273/EC

The system to be applied is: 3

In addition, with regard to e.g. reaction to fire for products covered by this EAD the applicable European legal act is: 2000/273/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 26 April 2023 by Deutsches Institut für Bautechnik.

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Head of Section

*beglaubigt:*  
Tykiel