Deutsches Institut für Bautechnik

Approval body for construction products and types of construction

Bautechnisches Prüfamt

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European Technical Assessment

ETA-22/0600 of 11 January 2023

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General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	"BTF FLÜSTERMATTE 8 MM"
Product family to which the construction product belongs	"polyester fibres mat to be used for impact sound insulation under floating screeds"
Manufacturer	btf Innovationen für den Bau GmbH Fahrenheitstraße 3 86899 Landsberg am Lech DEUTSCHLAND
Manufacturing plant	btf Innovationen für den Bau GmbH Fahrenheitstraße 3 86899 Landsberg am Lech DEUTSCHLAND
This European Technical Assessment contains	6 pages including 1 annex 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 040049-01-0502

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Specific Part

1 Technical description of the product

This European Technical Assessment applies to polyester fibre mats "BTF FLÜSTERMATTE 8 MM" for impact sound insulation under floating screeds, referred to hereinafter as impact sound insulation mats.

The impact sound insulation mats are manufactured from polyester fibres in the following dimensions:

Nominal length: 28000 mm

Nominal width: 1250 mm

Nominal thickness d_L: 8.0 mm

For the manufacture of the impact sound insulation mats, polyester staple fibres (of 6 - 7 cm) are thermally bonded.

The impact sound insulation mats can be laminated single-sidedly with a polyethylene-foil with an overlap of at least 10 cm.

The European Technical Assessment has been issued for the products on the basis of agreed data/information, deposited with Deutsches Institut für Bautechnik, which identifies the product that has been assessed (e.g., information on tensile strength in mat plane). The European Technical Assessment applies only to products corresponding to this agreed data/information.

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

The impact sound insulation mats are used as insulation material on solid floor slabs for the improvement of impact sound insulation inside buildings. In this connection the impact sound insulation mats are placed in one layer under floating screeds.

As to the application of the impact sound insulation mat, the respective national regulations shall additionally be observed.

The performance according to section 3 only applies if the impact sound insulation mats are installed according to the manufacture's installation instructions and according to annex A 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 impact sound insulation mats 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

For sampling, conditioning and testing the provisions of the EAD No 040049-01-0502 "polyurethane (PU) foam mat or polyester fibre mat to be used for impact sound insulation" apply.

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire test acc. to EN ISO 11925-2:2020 without single-sided layer with single-sided layer (polyethylene-foil)	 Class E nach EN 13501-1:2018 Class E - d2 nach EN 13501-1:2018

3.2 Protection against noise (BWR 5)

Essential characteristic	Performance
Dynamic stiffness [a)] test acc. to EN 29052-1:1992 without single-sided layer with single-sided layer (polyethylene-foil)	 $s'_t \leq 8$ MN/m³ $s'_t \leq 10$ MN/m³
Dynamic stiffness after deformation test	No performance assessed.
Impact sound reduction with a structural assembly in accordance with annex A Rating acc. to EN ISO 10140 (category II acc. to EN ISO 10140-1, annex H) assessment acc. to EN ISO 717-2:2013 without single-sided layer with single-sided layer (polyethylene-foil)	 $\Delta L_w \geq 28$ dB [b)] $\Delta L_w \geq 27$ dB [b)]
Airborne sound insulation	No performance assessed.
Nominal length test acc. to EN 822:2013 dimensional deviation	28000 mm L1 acc. to EN 16069:2012 + A1:2015
Nominal widths test acc. to EN 822:2013 dimensional deviation	1250 mm W1 acc. to EN 16069:2012+ A1:2015
Squareness test acc. to EN 824:2013 dimensional deviation	 $S_b \leq 5$ mm/m
Thickness test acc. to EN 12431:2013	$d_L \geq 8.0$ mm
Compressibility test acc. to EN 12431:2013	c ≤ 3.0 mm (with $c = d_L - d_B$)
Mass per unit area test in line with EN 1602:2013 without single-sided layer with single-sided layer (polyethylene-foil)	 0.45 kg/m² to 0.55 kg/m² 0.60 kg/m² to 0.75 kg/m²

Essential characteristic	Performance
Compressive creep	No performance assessed.
Compressive stress at 10 % deformation	No performance assessed.
Deformation under specified load and temperature	No performance assessed.
Tensile strength (perpendicular to faces)	No performance assessed.

a) Note: The dynamic stiffness is not used for calculation of impact sound reduction of a floor build-up. Only the declared impact sound reduction is to be used for the design of protection against noise.

b) The design of the sound protection is to be performed according to the national provisions taking account of the structural assembly according to annex A.

3.3 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal conductivity and thermal resistance	No performance assessed.

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

In accordance with the European Assessment Document EAD No 040049-01-0502 "polyurethane (PU) foam mat or polyester fibre mat to be used for impact sound insulation" the legal basis is: Commission Decision 2000/273/EC (including change)

The system to be applied is: system 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 at Deutsches Institut für Bautechnik.

Issued in Berlin on 11 January 2023 by Deutsches Institut für Bautechnik

Frank Iffländer
Head of Section

beglaubigt:
Getzlaff

- The given values for the impact sound reduction in clause 3.2 apply, if the following is taken into account regarding the structural assembly:
- The impact sound insulation mats are loosely laid on the even solid floor slab to be insulated. If necessary unevenness is leveled off.
- The impact sound insulation mats are laid with edges tightly abutted and fixed with a suitable adhesive tape against displacement in such a way that no gaps will occur in the joint area.
- The impact sound insulation mats are protected by a suitable foil before the screed will be built in. As an alternative, the impact sound insulation mats laminated with a single-sided polyethylene-foil in the factory (with an overlap of at least 10 cm) are arranged in such a way that the unlaminated surface of the mat faces the floor slabs and the overlap of the foil lamination, which faces upwards, covers the joints of the mats. The foil covering the whole surface or the foil laminations overlapping in the area of the joints cover the impact sound insulation mats placed directly below the screed.
- At the boundary area on rising walls, the impact sound insulation mats are executed high enough in order to avoid sonic bridges or appropriate insulating edge strips are used.
- The floating screed, to be executed according to the national provisions, has a mass per unit area of at least 110 kg/m².