Deutsches Institut für Bautechnik

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Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

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European Technical Assessment

ETA-15/0727 of 7 August 2018

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General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	Regupol sound 12
Product family to which the construction product belongs	Impact sound insulation mat to be used for impact sound insulation under floating screed
Manufacturer	BSW Berleburger Schaumstoffwerk GmbH Am Hilgenacker 24 57319 Bad Berleburg DEUTSCHLAND
Manufacturing plant	BSW Berleburger Schaumstoffwerk GmbH Am Hilgenacker 24 57319 Bad Berleburg 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 040049-00-0502
This version replaces	ETA-15/0727 issued on 10 November 2015

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Specific part

1 Technical description of the product

This European Technical Assessment applies to the single-sided profiled impact sound insulation mats "Regupol sound 12" for impact sound insulation under floating screed, hereinafter referred to as impact sound insulation mats.

The impact sound insulation mats are made using a polyurethane elastomer composite with the following dimensions:

Nominal length: 1000 mm

Nominal width: 1200 mm

Nominal thickness d_L: 17.0 mm

The impact sound insulation mats are laminated with a water vapor permeable polypropylene-foil or an aluminium composite foil at the non-profiled side.

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. 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 screed.

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 040049-00-0502 "Polyurethane (PU) foam mat to be used for impact sound insulation" apply.

3.1 Mechanical resistance and stability (BWR 1)

Not applicable.

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire test acc. to EN ISO 11925-2:2010	
laminated with aluminium composite foil	Class E acc. to EN 13501-1:2007 + A1:2009
laminated with polypropylene-foil	Class E-d2 acc. to EN 13501-1:2007 + A1:2009

3.3 Hygiene, health and the environment (BWR 3)

No performance assessed.

3.4 Safety and accessibility (BWR 4)

Not applicable.

3.5 Protection against noise (BWR 5)

Essential characteristic	Performance
Dynamic stiffness [a)] test acc. to EN 29052-1:1992	$s'_t \leq 6$ MN/m³
Impact sound reduction with a structural assembly in accordance with annex A Rating acc. to EN ISO 10140:2010 (category II acc. to EN ISO 10140-1, annex H) assessment acc. to EN ISO 717-2:2013	$\Delta L_w \geq 31$ dB [b),c)]
Nominal length test acc. to EN 822:2013 dimensional deviation	1000 mm L1 acc. to EN 16069:2012 + A1:2015
Nominal widths test acc. to EN 822:2013 dimensional deviation	1200 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	$d_L \geq 17.0$ mm
Compressibility test acc. to EN 12431:2013	$c \leq 2.0$ mm (with $c = d_L - d_B$)
Mass per unit area test in line with EN 1602:2013	4.5 kg/m² to 5.5 kg/m²

Essential characteristic	Performance
Compressive creep	No performance assessed.
Compressive stress at 10 % deformation test acc. to EN 826:2013	$\sigma_{10\,\%} \geq 2.0$ kPa
Deformation under specified load and temperature test acc. to 1605:2013 with test condition 2 (40 kPa, 70 °C, 168 h)	$\Delta\,\varepsilon \leq 5.0$ % (difference between the relative deformation ε_1 after step A and ε_2 after step B)

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 given value includes a reduction of 1 dB to take influence of possible ageing into account.
c) 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.

3.6 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.

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

According to Decision of the Commission 2000/273/EC as amended by Decision of the Commission 2001/596/EC, the system 3 of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) shall be applied.

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 7 August 2018 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe
Head of Department

beglaubigt:
Getzlaff

ANNEX A

The given values for the impact sound reduction in clause 3.5 apply, if the following is taken into account regarding the structural assembly:

- The impact sound insulation mats are loosely laid with the profiled side down 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 joints between the impact sound insulation mats are sealed with a fabric-reinforced high-performance adhesive tape (of at least 10 cm in width) fastened crease-free and centrally across the joint. The tape has got a high adhesive strength and be applied professionally by a qualified person. The adhesive surface is dry and clean to ensure sufficient bonding. The foil covering the whole surface or the adhesive tape sealing the joints to be applied to the top layer of impact sound insulation mats placed directly below the screed.
- Appropriate insulating edge strips are used at the boundary area on rising walls in order to avoid sonic bridges. If the joints are sealed with the above-mentioned adhesive tape, appropriate edge insulation strips need to be used.
- The floating screed, to be executed according to the national provisions, has a mass per unit area of at least 190 kg/m².