

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

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European Technical Assessment

ETA-10/0057
of 2 October 2020

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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 17

Product family
to which the construction product belongs

Rubber fibre mat for impact sound insulation under
floating screed

Manufacturer

REGUPOL BSW GmbH
Am Hilgenacker 24
57319 Bad Berleburg
DEUTSCHLAND

Manufacturing plant

REGUPOL BSW GmbH (Werk II)
Industriestraße 6
57319 Bad Berleburg
DEUTSCHLAND

This European Technical Assessment
contains

7 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 040048-01-0502

This version replaces

ETA-10/0057 issued on 1 June 2018

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Specific part

1 Technical description of the product

This European Technical Assessment applies to the single-sided profiled rubber fibre mat "REGUPOL sound 17" for impact sound insulation under floating screeds, hereinafter referred to as impact sound insulation mat.

The mat manufactured using scrap tire material and a binding agent based on polyurethane is delivered in the form of boards laminated with a water vapor permeable polypropylene-foil or an aluminium composite foil at the non-profiled side.

The impact sound insulation mat is made with the following dimensions:

Nominal length: 1200 mm

Nominal width: 1000 mm

Nominal thickness d_L : 17.0 mm

The European Technical Assessment has been issued for the product 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 mat is used as insulation material on solid floor slabs for the improvement of impact sound insulation inside buildings. In this connection the impact sound insulation mat is placed in single-layer or double-layer execution under floating screed.

The impact sound insulation mat is used in particular for structures with high imposed loads.

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 040048-01-0502 "rubber 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 11925-2:2010	Class E acc. to EN 13501-1:2007 + A1:2009 Class E-d2 acc. to EN 13501-1:2007 + A1:2009
laminated with aluminium composite foil	
laminated with polypropylene-foil	

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance																		
Content, emission and/or release of dangerous substances																			
Substance(s) classified as Carc. 1A/1B. ^{a)}	The product with a secondary raw material made from used tyres does not contain these dangerous substances actively used with the exception of PAH and N-Nitrosamines. ^{b)}																		
Substance(s) classified as Muta. 1A/1B. ^{a)}																			
Substance(s) classified as EU-cat. Acute Tox. 1, 2 and/or 3; substance(s) classified as Repr. 1A/1B; substance(s) classified as STOT SE 1 and/or STOT RE 1. ^{a)}																			
PAH	Sum of 16 EPA-PAH: $\leq 50 \text{ mg/kg}^{\text{c)}$ B[a]P: $\leq 5 \text{ mg/kg}^{\text{c)}$																		
N-Nitrosamines	$\leq 11 \mu\text{g/kg}$																		
SVOC and VOC	The product was tested for the emission of dangerous substances using the loading factor $L = 0.4 \text{ m}^2/\text{m}^3$ (for floor) and was therefore assessed: ^{d)} <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>3 days</th> <th>28 days</th> </tr> </thead> <tbody> <tr> <td>Carcinogen (Cat.1A/1B) ^{a)}</td> <td>$< 0,01 \text{ mg/m}^3$</td> <td>$< 0,001 \text{ mg/m}^3$</td> </tr> <tr> <td>TVOC_{spez}</td> <td>$< 10 \text{ mg/m}^3$</td> <td>$< 1,0 \text{ mg/m}^3$</td> </tr> <tr> <td>TSVOC</td> <td></td> <td>$< 0,1 \text{ mg/m}^3$</td> </tr> <tr> <td>TVOC without NIK ^{e)}</td> <td></td> <td>$< 0,1 \text{ mg/m}^3$</td> </tr> <tr> <td>R-value</td> <td></td> <td>< 1</td> </tr> </tbody> </table>		3 days	28 days	Carcinogen (Cat.1A/1B) ^{a)}	$< 0,01 \text{ mg/m}^3$	$< 0,001 \text{ mg/m}^3$	TVOC _{spez}	$< 10 \text{ mg/m}^3$	$< 1,0 \text{ mg/m}^3$	TSVOC		$< 0,1 \text{ mg/m}^3$	TVOC without NIK ^{e)}		$< 0,1 \text{ mg/m}^3$	R-value		< 1
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Release scenarios regarding BWR 3: IA2 (according to EOTA TR 034)																			
^{a)} In accordance with Regulation (EC) No 1272/2008 ^{b)} Assessment based on the detailed manufacturers' statements on dangerous substances ^{c)} Assessment based on test method DIN ISO 18287:2006-05 ^{d)} Statement according to test report based on EN 16516:2018-01 ^{e)} Available at www.dibt.de (German LCI list)																			

3.3 Protection against noise (BWR 5)

Essential characteristic	Performance
Dynamic stiffness ^{a)} test acc. to EN 29052-1:1992	$s'_t \leq 19 \text{ MN/m}^3$
Impact sound reduction with a structural assembly in accordance with annex A ^{b)} 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 for single-layer execution for double-layer execution	 $\Delta L_w \geq 26 \text{ dB}$ $\Delta L_w \geq 30 \text{ dB}$
Nominal length test acc. to EN 822:2013 dimensional deviation	1200 mm L1 acc. to EN 16069:2012 + A1:2015
Nominal widths test acc. to EN 822:2013 dimensional deviation	1000 mm W1 acc. to EN 16069:2012+ A1:2015
Squareness test acc. to EN 824:2013 dimensional deviation	$S_b \leq 5 \text{ mm/m}$
Thickness test acc. to EN 12431:2013	$d_L \geq 17.0 \text{ mm}$
Compressibility test acc. to EN 12431:2013	(with $c = d_L - d_B$) $c \leq 2.0 \text{ mm}$
Mass per unit area test in line with EN 1602:2013	6.5 kg/m ² to 8.0 kg/m ²
Compressive creep	No performance assessed.
Compressive stress at 10 % deformation test acc. to EN 826:2013	$\sigma_{10\%} \geq 10.0 \text{ kPa}$
Deformation under specified load and temperature test acc. to EN 1605:2013 with test condition 3 step A: (23 ± 5)°C / (48 ± 1) h / 80 kPa step B: (60 ± 1)°C / (168 ± 1) h / 80 kPa	(difference between the relative deformation ε_1 after step A and ε_2 after step B) $\Delta \varepsilon \leq 5.0 \%$
^{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.	

3.4 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
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 040048-01-0502 "rubber 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 2 October 2020 by Deutsches Institut für Bautechnik

Frank Iffländer
Head of Section

beglaubigt:
Getzlaff

REGUPOL sound 17

Annex A

The given values for the impact sound reduction in clause 3.3 apply, if the following is taken into account regarding the structural assembly:

- The impact sound insulation mats are loosely laid as single-layer or double-layer execution 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.
- Appropriate insulating edge strips are used at the boundary area on rising walls in order to avoid sonic bridges.
- The impact sound insulation mats are protected by a suitable foil before the screed will be built in.
- The floating screed, to be executed according to the national provisions, has a mass per unit area of at least 240 kg/m².
- For the single-layer execution the impact sound insulation mats are loosely laid on the solid floor slab, with the profiled side down to the solid floor.
- For the double-layer execution the first layer of the impact sound insulation mats is loosely laid on the solid floor as for the single-layer execution (with the profiled side down to the solid floor). After this the second layer of the impact sound insulation mats is loosely laid on the first layer, with the profiled side down to the solid floor. The second layer of the impact sound insulation mats is laid staggered to the first layer, so that the buttjoints of the impact sound insulation mats of both layers will not be on top of each other.