

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-10/0056  
of 9 February 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

REGUPOL sound 47

Product family  
to which the construction product belongs

Rubber fibre mat for impact sound insulation under  
floating screed

Manufacturer

REGUPOL Germany GmbH & Co. KG  
Am Hilgenacker 24  
57319 Bad Berleburg

Manufacturing plant

REGUPOL Germany GmbH & Co. KG  
Industriestraße 6 (Werk II)  
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

040048-01-0502

This version replaces

ETA-10/0056 issued on 22 October 2020

The European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction shall be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No 305/2011.

**Specific part**

**1 Technical description of the product**

This European Technical Assessment applies to the single-sided profiled rubber fibre mat "REGUPOL sound 47" for impact sound insulation under floating screed, hereinafter referred to as impact sound insulation mat.

The mat manufactured using rubber fibre of tyre retreading and a binding agent based on polyurethane is delivered in the form of rolls.

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

- Nominal length: 13000 mm
- Nominal width: 1150 mm
- Nominal thickness  $d_L$ : 8.0 mm

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 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 one layer under floating screed.

The performance according to section 3 only applies if the impact sound insulation mat is installed according to the manufacture's installation instructions and according to annex A and if it is 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<br>test acc. to EN ISO 11925-2:2020 | Class E<br>acc. to EN 13501-1:2018 |

### 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. <sup>a)</sup>   | 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. <sup>b)</sup>   |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| Substance(s) classified as Muta. 1A/1B. <sup>a)</sup>   |  |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| 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. <sup>a)</sup>   |  |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| PAH   | Sum of 16 EPA-PAH: $\leq 50 \text{ mg/kg}^{\text{c)}$<br>B[a]P: $\leq 5 \text{ mg/kg}^{\text{c)}$  |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| N-Nitrosamines  | $\leq 11 \text{ }\mu\text{g/kg}$   |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| 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: <sup>d)</sup> <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) <sup>a)</sup></td> <td><math>&lt; 0,01 \text{ mg/m}^3</math></td> <td><math>&lt; 0,001 \text{ mg/m}^3</math></td> </tr> <tr> <td>TVOC<sub>spez</sub></td> <td><math>&lt; 10 \text{ mg/m}^3</math></td> <td><math>&lt; 1,0 \text{ mg/m}^3</math></td> </tr> <tr> <td>TSVOC</td> <td></td> <td><math>&lt; 0,1 \text{ mg/m}^3</math></td> </tr> <tr> <td>TVOC without NIK <sup>e)</sup></td> <td></td> <td><math>&lt; 0,1 \text{ mg/m}^3</math></td> </tr> <tr> <td>R-value</td> <td></td> <td><math>&lt; 1</math></td> </tr> </tbody> </table> |                          | 3 days | 28 days | Carcinogen (Cat.1A/1B) <sup>a)</sup> | $< 0,01 \text{ mg/m}^3$ | $< 0,001 \text{ mg/m}^3$ | TVOC <sub>spez</sub> | $< 10 \text{ mg/m}^3$ | $< 1,0 \text{ mg/m}^3$ | TSVOC |  | $< 0,1 \text{ mg/m}^3$ | TVOC without NIK <sup>e)</sup> |  | $< 0,1 \text{ mg/m}^3$ | R-value |  | $< 1$ |
|   | 3 days   | 28 days                  |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| Carcinogen (Cat.1A/1B) <sup>a)</sup>  | $< 0,01 \text{ mg/m}^3$  | $< 0,001 \text{ mg/m}^3$ |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| TVOC <sub>spez</sub>  | $< 10 \text{ mg/m}^3$  | $< 1,0 \text{ mg/m}^3$   |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| TSVOC   |  | $< 0,1 \text{ mg/m}^3$   |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| TVOC without NIK <sup>e)</sup>  |  | $< 0,1 \text{ mg/m}^3$   |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| R-value   |  | $< 1$                    |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| Release scenarios regarding BWR 3: IA2 (according to EOTA TR 034)   |  |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |
| <sup>a)</sup> In accordance with Regulation (EC) No 1272/2008<br><sup>b)</sup> Assessment based on the detailed manufacturers' statements on dangerous substances<br><sup>c)</sup> Assessment based on test method DIN ISO 18287:2006-05<br><sup>d)</sup> Statement according to test report based on EN 16516:2018-01<br><sup>e)</sup> Available at <a href="http://www.dibt.de">www.dibt.de</a> (German LCI list) |  |                          |        |         |                                      |                         |                          |                      |                       |                        |       |  |                        |                                |  |                        |         |  |       |

### 3.3 Protection against noise (BWR 5)

| Essential characteristic   | Performance                                   |
|--|---|
| Dynamic stiffness <sup>a)</sup><br>test acc. to EN 29052-1:1992  | $s'_t \leq 50 \text{ MN/m}^3$                 |
| Impact sound reduction with a structural assembly in accordance with annex A<br>Rating acc. to EN ISO 10140:2010 (category II acc. to EN ISO 10140-1, annex H)<br>assessment acc. to EN ISO 717-2:2013 | $\Delta L_w \geq 22 \text{ dB}^{\text{b)}$    |
| Nominal length, test acc. to EN 822:2013<br>dimensional deviation  | 13000 mm<br>L1 acc. to EN 16069:2012 +A1:2015 |

| Essential characteristic   | Performance   |
|--|---|
| Nominal widths<br>test acc. to EN 822:2013<br>dimensional deviation  | 1150 mm<br><br>W1 acc. to EN 16069:2012 +A1:2015  |
| Squareness<br>test acc. to EN 824:2013<br>dimensional deviation  | <br><br>$S_b \leq 5 \text{ mm/m}$   |
| Thickness<br>test acc. to EN 12431:2013  | $d_L \geq 8.0 \text{ mm}$   |
| Compressibility<br>test acc. to EN 12431:2013  | $c \leq 1.0 \text{ mm}$<br>(with $c = d_L - d_B$ )  |
| Mass per unit area<br>test in line with EN 1602:2013   | 3.30 kg/m <sup>2</sup> to 3.80 kg/m <sup>2</sup>  |
| Compressive creep  | No performance assessed.  |
| Compressive stress at 10 % deformation<br>test acc. to EN 826:2013   | $\sigma_{10\%} \geq 10 \text{ kPa}$   |
| Deformation under specified load and temperature<br>test acc. to 1605:2013<br>with test condition 2 (40 kPa, 70 °C, 168 h)   | $\Delta \varepsilon \leq 5.0 \%$<br>(difference between the relative deformation $\varepsilon_1$ after step A and $\varepsilon_2$ after step B) |
| <p>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.</p> <p>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.</p> |   |

### 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 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 9 February 2024 by Deutsches Institut für Bautechnik

Frank Iffländer  
Head of Section

*beglaubigt:*  
Getzlaff

**REGUPOL sound 47**

**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 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.
- 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 135 kg/m<sup>2</sup>.