



Approval body for construction products and types of construction

**Bautechnisches Prüfamt** 

An institution established by the Federal and Laender Governments



# **European Technical Assessment**

ETA-18/0481 of 16 April 2020

English translation prepared by DIBt - Original version in German language

#### **General Part**

Technical Assessment Body issuing the European Technical Assessment:

Trade name of the construction product

Product family to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment contains

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of

Deutsches Institut für Bautechnik

"AcoustiCORK U34" and "AcoustiCORK U71"

rubber granulate fibre mat for impact sound insulation under floating screed

Amorim Cork Composites, S.A. Rua de Meladas n° 260 4536-902 MOZELOS PORTUGAL

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7 pages including 1 annex which form an integral part of this assessment

EAD 040048-01-0502



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#### Specific part

#### 1 Technical description of the product

This European Technical Assessment applies to the single-side profiled rubber granulate mat "AcoustiCORK U34" and "AcoustiCORK U71" for impact sound insulation under floating screeds, hereinafter referred to as impact sound insulation mat.

The mat manufactured using rubber granulate based on recycling material and a binding agent based on polyurethane (PU elastomer) is delivered in the form of rolls or mats.

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

Nominal length: 9000 mm und 15000 mm (rolls) or 1250 mm (mats)

Nominal width: 1000 mm

Nominal thickness d<sub>L</sub>: 8.0 mm or 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 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 040048-01-0502 "rubber fibre mat to be used for impact sound insulation" apply.



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### 3.1 Safety in case of fire (BWR 2)

| Essential characteristic         | Performance                       |  |
|----------------------------------|-----------------------------------|--|
| Reaction to fire                 | Class E                           |  |
| test acc. to EN ISO 11925-2:2010 | acc. to EN 13501-1:2007 + A1:2009 |  |

### 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>   |  |     |                        |                           |  |  |  |
| Substance(s) classified as<br>Muta. 1A/1B. <sup>a)</sup>  | The product does not contain these dangerous substances actively used with the exception of PAH and N-Nitrosamines. <sup>b)</sup>                |     |                        |                           |  | The product does not contain these dangerous substance |  |
| Substance(s) classified as EUcat. 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   |  |     | ≤ 50 mg/kg             |                           |  |  |  |
|   |  |     | ≤ 5 mg/kg              | kg                        |  |  |  |
| N-Nitrosamines  | ≤ 11 µg/kg   |     |                        |                           |  |  |  |
| SVOC and VOC  | The product was tested for the emission of dangerous substances using the loading factor L= 0.4 m²/m³ (for floor) and was therefore assessed: c) |     |                        |                           |  |  |  |
|   |  | ;   | 3 days                 | 28 days                   |  |  |  |
|   | Carcinogen<br>(Cat. 1A/1B)   | < ( | ).01 mg/m <sup>3</sup> | < 0.001 mg/m <sup>3</sup> |  |  |  |
|   | TVOC <sub>spez</sub>   | < 1 | 10 mg/m <sup>3</sup>   | < 1.0 mg/m <sup>3</sup>   |  |  |  |
|   | TSVOC  |     |                        | < 0.1 mg/m <sup>3</sup>   |  |  |  |
|   | TVOC without NIK d)  |     |                        | < 0.1 mg/m <sup>3</sup>   |  |  |  |
|   | R-value  |     |                        | < 1                       |  |  |  |
| Release scenarios regarding BWR 3: IA2 (according to EOTA TR 034)   |  |     |                        |                           |  |  |  |

- a) In accordance with Regulation (EC) No 1272/2008
- Assessment based on the detailed manufacturers' statements on dangerous substances
- c) Statement according to test report
- d) Available at www.dibt.de (German LCI list)

### 3.3 Protection against noise (BWR 5)

| Essential characteristic        | Performance                   |
|---------------------------------|-------------------------------|
| Dynamic stiffness <sup>a)</sup> |                               |
| test acc. to EN 29052-1:1992    |                               |
|                                 |                               |
| Nominal thickness d = 17.0 mm   | $s'_t \leq 16  MN/m^3$        |
| Nominal thickness d = 8.0 mm    | $s'_t \leq 26 \text{ MN/m}^3$ |



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| Essential characteristic   | Performance                        |  |  |
|--|------------------------------------|--|--|
| Impact sound reduction with a structural assembly  |                                    |  |  |
| in accordance with annex A <sup>b)</sup>   |                                    |  |  |
| 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   |                                    |  |  |
|  |                                    |  |  |
| Nominal thickness d = 17.0 mm  | $\Delta L_{w} \geq 29 \text{ dB}$  |  |  |
| Nominal thickness d = 8.0 mm   | $\Delta L_{w} \geq 24 \text{ dB}$  |  |  |
| Nominal length   | 1250 mm (mats)                     |  |  |
| test acc. to EN 822:2013   |                                    |  |  |
|  |                                    |  |  |
| Nominal thickness d = 17.0 mm  | 9000 mm (rolls)                    |  |  |
| Nominal thickness d = 8.0 mm   | 15000 mm (rolls)                   |  |  |
| dimensional deviation  | L1 acc. to EN 16069:2012 + A1:2015 |  |  |
| Nominal widths   | 1000 mm                            |  |  |
| test acc. to EN 822:2013   |                                    |  |  |
| dimensional deviation  | W1 acc. to EN 16069:2012+ A1:2015  |  |  |
| Squareness   | No performance assessed.           |  |  |
| Thickness  |                                    |  |  |
| test acc. to EN 12431:2013   |                                    |  |  |
| Noneth delicities and 47.0 mm  | 1 > 47.0                           |  |  |
| Nominal thickness d = 17.0 mm  Nominal thickness d = 8.0 mm  | d <sub>L</sub> ≥ 17.0 mm           |  |  |
|  | d <sub>L</sub> ≥ 8.0 mm            |  |  |
| Compressibility c (with c = d <sub>L</sub> - d <sub>B</sub> )  |                                    |  |  |
| test acc. to EN 12431:2013   |                                    |  |  |
| Nominal thickness d = 17.0 mm  | c ≤ 1.5 mm                         |  |  |
| Nominal thickness d = 8.0 mm   | c ≤ 1.0 mm                         |  |  |
| Mass per unit area   |                                    |  |  |
| test in line with EN 1602:2013   |                                    |  |  |
|  |                                    |  |  |
| Nominal thickness d = 17.0 mm  | 7.3 kg/m² to 9.0 kg/m²             |  |  |
| Nominal thickness d = 8.0 mm   | 3.8 kg/m² to 4.6 kg/m²             |  |  |
| Compressive creep  | No performance assessed.           |  |  |
| Compressive stress at 10 % deformation   | No performance assessed.           |  |  |
| Deformation under specified load and temperature   | No performance assessed.           |  |  |
| Resistance to breaking or cracking   | No performance assessed.           |  |  |
| A) Note: The dynamic stiffness is not used for colouistics of insert a single distinct of flow building of the state of th |                                    |  |  |

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.

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.





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### 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.

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Maja Tiemann beglaubigt:
Head of Department Getzlaff



#### **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 on the even solid floor slab to be insulated, with the profiled side down to the solid floor. 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 180 kg/m².

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