

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-15/0358  
of 7 July 2015

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

"DAMTEC wave 3D 17/8" and  
"DAMTEC wave 3D 8/4"

Product family  
to which the construction product belongs

Polyurethane (PU) foam mat to be used for impact sound  
insulation

Manufacturer

KRAIBURG Relastec GmbH & Co. KG  
Fuchsberger Straße 4  
29410 Salzwedel  
DEUTSCHLAND

Manufacturing plant

KRAIBURG Relastec GmbH & Co. KG  
Fuchsberger Straße 4  
29410 Salzwedel

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

the European Assessment Document (EAD)  
040049-00-0502 "Polyurethane (PU) foam mat to be used  
for impact sound insulation".

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Page 2 of 6 | 7 July 2015

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## Specific Part

### 1 Technical description of the product

This European Technical Assessment applies to the single-sided profiled polyurethane foam mats "DAMTEC wave 3D 17/8" and "DAMTEC wave 3D 8/4" for impact sound insulation under floating screed, hereinafter referred to as impact sound insulation mat.

The impact sound insulation mats are made with the following dimensions:

Nominal length	8000 mm
Nominal width:	1250 mm
Nominal thickness $d_L$ :	17.0 mm ("DAMTEC wave 3D 17/8")
Nominal thickness $d_L$ :	8.0 mm ("DAMTEC wave 3D 8/4")

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 (protected from wetting and weathering). In this connection the impact sound insulation mats are placed in one layer under unheated floating screed.

As to the application of the impact sound insulation mats, 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 polyurethane foam 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	Class E acc. to EN 13501-1:2007 + A1:2009

### 3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content, emission and/or release of dangerous substances	The product does not contain or release dangerous substances according to EOTA TR 034 (version October 2014) except, VOC, SVOC: Based on an individually assessment by the Technical Assessment Body there is no risk, that VOC, SVOC will be set free into indoor air by consideration of all possible release scenarios.

### 3.4 Safety and accessibility (BWR 4)

Not applicable.

### 3.5 Protection against noise (BWR 5)

Essential characteristic	Performance
Dynamic stiffness test acc. to EN 29052-1:1992 "DAMTEC wave 3D 17/8" "DAMTEC wave 3D 8/4"	$s'_t \leq 8 \text{ MN/m}^3$ $s'_t \leq 19 \text{ MN/m}^3$
Impact sound reduction with a structural assembly in accordance with annex A test acc. to EN ISO 10140:2010 (category II) Rating acc. to EN ISO 717-2:2013 "DAMTEC wave 3D 17/8" "DAMTEC wave 3D 8/4"	$\Delta L_w \geq 30 \text{ dB}$ <sup>a), b)</sup> $\Delta L_w \geq 23 \text{ dB}$ <sup>a), b)</sup>
Nominal length test acc. to EN 822:2013 dimensional deviation	8000 mm L3 acc. to EN 16069:2012
Nominal widths test acc. to EN 822:2013 dimensional deviation	1250 mm W4 acc. to EN 16069:2012
Squareness test acc. to EN 824:2013 dimensional deviation	$S_b \leq 5 \text{ mm/m}$
Thickness test acc. to EN 12431:2013 "DAMTEC wave 3D 17/8" "DAMTEC wave 3D 8/4"	$d_L \geq 17.0 \text{ mm}$ $d_L \geq 8.0 \text{ mm}$
Compressibility test acc. to EN 12431:2013 "DAMTEC wave 3D 17/8" "DAMTEC wave 3D 8/4"	(with $c = d_L - d_B$ ) $c \leq 2.0 \text{ mm}$ $c \leq 1.0 \text{ mm}$

Essential characteristic	Performance
Mass per unit area test in line with EN 1602:2013 "DAMTEC wave 3D 17/8" "DAMTEC wave 3D 8/4"	4.0 kg/m <sup>2</sup> to 5.0 kg/m <sup>2</sup> 2.0 kg/m <sup>2</sup> to 2.6 kg/m <sup>2</sup>
Compressive creep	No performance assessed.
Compressive stress at 10 % deformation test acc. to EN 826:2013	$\sigma_{10\%} \geq 5 \text{ kPa}$
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 $\varepsilon_1$ after step A and $\varepsilon_2$ after step B)
<p>a) The given values include in each case a reduction of 2 dB to take influence of possible ageing into account.</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 with the design value of the impact sound reduction. The design value of the impact sound reduction shall be laid down based on the nominal value given in clause 3.5 according to the respective national regulations.</p>	

### 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 July 2015 by Deutsches Institut für Bautechnik

Dirk Brandenburger  
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.
- 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 105 kg/m<sup>2</sup>.