

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-16/0973**  
**of 7 February 2017**

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

"Wohnklimaplatte epatherm etp"

Product family  
to which the construction product belongs

Thermal insulation board made of mineral material

Manufacturer

epasit GmbH  
Sandweg 12-14  
72119 Ammerbuch-Altingen  
DEUTSCHLAND

Manufacturing plant

Werk 1

This European Technical Assessment  
contains

6 pages 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

European Assessment Document (EAD)  
040012-00-1201

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This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No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

This European Technical Assessment applies to the factory-made thermal insulation boards made of calcium silicate and cellulose fibres with the designation "Wohnklimaplatte epatherm etp", hereafter referred to as thermal insulation boards.

The thermal insulation boards are high-pressure steam cured (autoclaved).

The thermal insulation boards are not coated or laminated and are made with the following dimensions:

Nominal thicknesses:	50 mm
Nominal length:	500 mm or 1000 mm
Nominal widths:	500 mm, 750 mm or 1000 mm

Special dimensions deviating from the above nominal length and nominal widths are possible.

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 (EAD)

The thermal insulation boards can be used for the following intended uses:

- Internal insulation of ceilings (underside) or roofs
- Internal insulation of floors or bedplates (on the top) below floor screed without protection against noise requirements
- Internal insulation of walls

The performance according to section 3 only applies if the thermal insulation boards are installed according to the manufacture's installation instructions and if they are protected from precipitation, wetting or weathering in built-in state and during transport, storage and installation.

Concerning the application of the thermal insulation boards, also the respective national regulations shall be observed.

The design value of the thermal conductivity shall be laid down according to relevant national provisions.

When calculating the thermal resistance, the nominal thickness of the insulation materials shall be applied.

Where the thermal insulation boards are fixed by using adhesives and/or anchors, only such adhesions or anchors shall be used, which are suitable for this purpose. The assessment of these fixings is not subject of this European Technical Assessment.

### 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 040012-00-1201 "Thermal insulation board made of mineral material".

#### 3.1 Mechanical resistance and stability (BWR 1)

Not applicable.

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

Essential characteristic	Performance
<b>Reaction to fire:</b> Test acc. to EN ISO 1182:2010 and EN ISO 1716:2010	Class A1 acc. to EN 13501-1:2010 <sup>1</sup>

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

Essential characteristic	Performance
<b>Content of dangerous substances:</b>	The product does not contain dangerous substances according to EOTA TR 034 (Version October 2015).
Release scenarios regarding BWR 3	I A1, I A2, I A3
<b>Water vapour diffusion resistance coefficient:</b> Test acc. to EN 12086:2013, climatic condition set A	$\mu = 2 - 5^2$

### 3.4 Safety and accessibility (BWR 4)

Not applicable.

### 3.5 Protection against noise (BWR 5)

Not applicable.

### 3.6 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
<b>Thermal conductivity:</b> at mean reference temperature of 10 °C Test acc. to EN 12667:2001  "Wohnklimaplatte epatherm etp"	Declared value for a moisture content of the insulation boards at 23 °C and 50 % relative humidity:  $\lambda_{D(23,50)} = 0.064 \text{ W/(m} \cdot \text{K)}$ (category 1*) $\lambda_{D(23,50)} = 0.064 \text{ W/(m} \cdot \text{K)}$ (category 2**)
Conversion of humidity acc. to EN ISO 10456:2010	
Mass-related moisture content at 23 °C/ 50 % rel. humidity:	$u_{23,50} = 0.020 \text{ kg/kg}$
Mass-related moisture content at 23 °C/ 80 % rel. humidity:	$u_{23,80} = 0.034 \text{ kg/kg}$
Mass-related moisture conversion coefficient: (dry to 23 °C/ 50 % rel. humidity):	$f_{u1} = 1.17$
Mass-related moisture conversion coefficient: (23 °C/ 50 % rel. humidity to 23 °C/ 80 % rel. humidity):	$f_{u2} = 0.93$
Moisture conversion factor (dry to 23 °C/ 50 % rel. humidity):	$F_{m1} = 1.03$
Moisture conversion factor (23 °C/ 50 % rel. humidity to 23 °C/ 80 % rel. humidity):	$F_{m2} = 1.01$

<sup>1</sup> The reaction to fire of class A1 according to EN 13501-1 is only proved if the thermal insulation boards are not supplementary provided with paints, coatings or the like.

<sup>2</sup> The most unfavorable value for the construction product work shall be applied each.

Essential characteristic	Performance
<b>Dimensional deviations (individual values):</b>	maximum deviation:
Length and width: Test acc. EN 822:2013	$\pm 2$ mm class L(2) and W(2) acc. to EN 13163:2013
Thickness: Test acc. EN 823:2013 (with a load of 250 Pa)	$\pm 2$ mm
Squareness in direction of length and width: in direction of thickness: Test acc. EN 824:2013	$S_b \leq 4$ mm/m $S_d \leq 2$ mm
Flatness in direction of length and width: Test acc. EN 825:2013	$S_{max} \leq 2$ mm
<b>Water absorption:</b>	No performance assessed.
<b>Density (each individual value):</b> Test acc. to EN 1602:2013	Density range: 195 kg/m <sup>3</sup> - 215 kg/m <sup>3</sup>
<b>Bending strength:</b>	No performance assessed.
<b>Compressive strength:</b> Test acc. to EN 826:2013	Mean value (individual values may fall below this value up to 10 %): 1000 kPa
<b>Dimensional stability at 70 °C:</b> Test acc. to EN 1604:2013 Conditioning: 48 h, at (70 $\pm$ 2) °C	Relative changes in length, width and thickness: $\leq 0.5$ %
<b>Dimensional stability at 23 °C and 90 % relative humidity:</b> Test acc. to EN 1604:2013 Conditioning: 48 h, at (23 $\pm$ 2) °C and (90 $\pm$ 5) % relative humidity	Relative changes in length, width and thickness: $\leq 0.5$ %
<b>Tensile strength perpendicular to faces:</b>	No performance assessed.
<b>Point load:</b>	No performance assessed.
<b>Porosity:</b>	No performance assessed.

\* The declared value of category 1 is representative for at least 90 % of the production with a confidence level of 90 % and applies to the density range given in section 3.6. For the admissible deviation of an individual value of the thermal conductivity from the declared value the method described in EN 13172:2012, annex F, applies.

\*\* The declared value of category 2 is based on a limit value, which must not be exceeded during the production and applies to the density range given in section 3.6. The limit value of thermal conductivity under dry conditions is  $\lambda_{10, dry} = 0.062$  W/(m · K).

English translation prepared by DIBt

**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 1999/91/EC as amended by Decision of the Commission 2001/596/EC, the systems 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 according to the following table:

Product	Intended use	System
"Wohnklimaplatte epatherm etp"	For uses subject to regulations on reaction to fire	1
	Any	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 7 February 2017 by Deutschen Institut für Bautechnik

Prof. Gunter Hoppe  
Head of Department

*beglaubigt:*  
Koper