

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-17/0500
of 16 August 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

"Staubex plus"

Product family
to which the construction product belongs

"Thermal insulation product made of loose fill expanded
perlite"

Manufacturer

KNAUF AQUAPANEL GmbH
Kipperstraße 19
44147 Dortmund
DEUTSCHLAND

Manufacturing plant

KNAUF AQUAPANEL GmbH
Kipperstraße 19
44147 Dortmund
DEUTSCHLAND

This European Technical Assessment
contains

5 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)
040461-00-1201

**European Technical Assessment
ETA-17/0500**

Page 2 of 5 | 16 August 2017

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Specific part

1 Technical description of the product

This European Technical Assessment applies to the thermal insulation product made of loose fill expanded perlite (EP) with the designation "Staubex plus", hereinafter referred to as thermal insulation.

The thermal insulation material is a granular, inorganic bulk good of grain sizes 0 - 6 mm made of thermally blown perlite.

The perlite grains are provided factory-made with a bitumen coating.

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 thermal insulation material can be used in the compressed state as interior insulation of ceilings or floor slabs (on the top) under screed without requirements for protection against noise.

The performance according to section 3 only applies if the insulation product is installed according to the manufacturer's installation instructions dry and in a compressed state with a compression at least 10% by volume in accordance with the bulk density given in the ETA 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 insulation product of at least 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, 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 040461-00-1201 "Thermal insulation product made of loose fill expanded perlite (EP)" 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 |
| Determination of the organic content test acc. to EN 13820 (determination of combustion loss) | No performance assessed. |
| * Using a suitable sample holder in line with EN ISO 11925-2 in which the loose sample material can not fall out. | |

3.3 Hygiene, health and the environment (BWR 3)

| Essential characteristic | Performance |
|---|--|
| Content, emission and/or release of dangerous substances | |
| Substance(s) classified as EU-cat. Carc. 1A/1B (H350, H350i), in accordance with Regulation (EC) No 1272/2008. | The product does not contain these dangerous substances actively used. a) However, the product may contain PAH and B[a]P as residues (see below). |
| Substance(s) classified as EU-cat. Muta. 1A/1B (H340), in accordance with Regulation (EC) No 1272/2008. | |
| Substance(s) classified as EU-cat. Acute Tox. 1, 2 and/or 3 (H300, H301, H310, H311, H339, H331); substance(s) classified as EU-cat. Repr. 1A/1B (H360, H360F, H360D, H360FD); substance(s) classified as EU-cat. STOT SE 1 and/or STOT RE 1 (H370, H372), in accordance with Regulation (EC) No 1272/2008. | |
| PAH and B[a]P | The content of these residues was tested in the raw material: PAH < 50 mg/kg B[a]P < 5 mg/kg |
| Release scenarios regarding BWR 3: IA 2, I A3, S/W 3 (according to EOTA TR 034) | |
| a) Assessment based on a detailed manufacturer's product declaration. | |

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)

| Wesentliches Merkmal | Leistung |
|---|---|
| Thermal conductivity test acc. to EN 12667:2001, acc. to EN 14316-1:2004 | Declared value of thermal conductivity $\lambda_D (23/50) = 0,061 \text{ W}/(\text{m} \cdot \text{K})^*$ |
| Loose bulk density test acc. to EN 1097-3:1998 | 120 kg/m ³ to 160 kg/m ³ |
| Particle size distribution | No performance assessed. |
| Water repellency | No performance assessed. |
| Crushing resistance | No performance assessed. |
| Water vapour diffusion resistance factor acc. to EN 14316-1:2004 | $\mu = 3$ |
| Settlement | No performance assessed. |
| Compressive stress at 10 % deformation test acc. to EN 826:2013 | $\geq 70 \text{ kPa}$ |
| * Declared value of thermal conductivity for a moisture content of the insulation product at 23 °C/50% relative humidity, representative of at least 90% of production with a 90% confidence level. | |

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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

In accordance with the European Assessment Document No 040461-00-1201 "Thermal insulation product made of loose fill expanded perlite (EP)" the legal basis is: Commission Decision 1999/91/EC.

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 with Deutsches Institut für Bautechnik.

Issued in Berlin on 16 August 2017 by Deutsches Institut für Bautechnik

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beglaubigt:
Getzlaff