Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

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European Technical Assessment ETA-26/0688 of 30 October 2026

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	JACKODUR LIGNIN
Product family to which the construction product belongs	Extruded polystyrene foam boards with Lignin as load bearing layer and / or thermal insulation outside the waterproofing
Manufacturer	Jackon Insulation GmbH Ritzlebener Straße 1 39619 Arendsee DEUTSCHLAND
Manufacturing plant	Jackon Insulation GmbH Ritzlebener Straße 1 39619 Arendsee GERMANY
This European Technical Assessment contains	6 pages which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Article 95(4) of Regulation (EU) 2024/3110, on the basis of	EAD 040650-00-1201

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Specific Part

1 Technical description of the product

The extruded polystyrene foam boards are manufactured as single layer boards (thickness ≤ 60 mm) and as multilayer boards (thickness ≥ 80 mm). The multilayer extruded polystyrene foam boards are manufactured from up to four layers of extruded polystyrene foam boards (single boards). The single boards with thicknesses from 40 mm up to 60 mm are bonded together by full-surface thermal welding. The respective total thickness of the product is composed of single layer boards with the same thicknesses.

The single boards are made of rigid cellular plastics material extruded from polystyrene and Lignin and which have a closed cell structure. The blowing agent mixture is carbon dioxide (CO_2), isobutane, and dimethyl ether.

The extruded polystyrene foam boards have a foam skin on both surfaces and a special edge treatment (shiplap).

The extruded polystyrene foam boards do not contain Hexabromocyclododecane (HBCD).

The extruded polystyrene foam boards have the following designation:

"JACKODUR LIGNIN"

The extruded polystyrene foam boards are manufactured with the following dimensions:

Nominal thicknesses:	40 mm to 200 mm
Nominal length:	1250 mm
Nominal widths:	600 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 extruded polystyrene foam boards are intended to be used as thermal insulation outside the waterproofing. The boards are laid uniformly and even on the substrate to which they are applied. In particular the following applications are covered:

- External horizontal and vertical thermal insulation of in-ground constructions in non-structural applications
- Inverted roof insulation (including green roof applications)

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 during transport and storage before installation.

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

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

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the extruded polystyrene foam boards of at least 50 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 040650-00-1201 "Extruded polystyrene foam boards as load bearing layer and/or thermal insulation outside the water-proofing" apply.

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire test acc. to EN ISO 11925-2:2020	Class E acc. to EN 13501-1:2018

3.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal conductivity at mean reference temperature of 10 °C test acc. to EN 12667:2001 or EN 12939:2001 and aging procedure acc. EN 13164:2012+A1:2015, Annex C with deviating storage time period (sliced specimen) of (90 +2/-2) days prior to testing Moisture conversion coefficient	 $\lambda_{D(90d)}$ = 0.032 W/(m ·K) No performance assessed
Water absorption Long term water absorption by total immersion test acc. to EN ISO 16535:2019 (method 2A) Long term water absorption by diffusion test acc. to EN ISO 16536:2019	 WL(T)3 (W_{lt} ≤ 3.0 Vol.%) WD(V)4 (W_{dV} ≤ 4.0 Vol.%)
Freeze-thaw resistance test acc. to EN ISO 16546:2020 using the wet test specimens from having done the water diffusion test in accordance with EN ISO 16536:2019	 FTCD5 (W_V ≤ 5.0 Vol.%)
Reduction in compressive stress at 10 % deformation or in compressive strength of the re-dried specimens, when tested in accordance with EN ISO 29469:2022 Reduction in shear strength of the re-dried specimens, when tested in accordance with EN 12090:2013	≤ 10 % ≤ 10 %
Water vapour diffusion resistance factor acc. to EN 12086:2013	climatic condition A μ ≤ 250

Essential characteristic	**Performance**
Geometrical properties Thickness test acc. EN ISO 29466:2022 (clause 7.2, figure 2, measuring set-up 3) Length, width test acc. EN ISO 29465:2022 Squareness in direction of length and width; in direction of thickness test acc. EN 824:2013 Flatness in direction of length and width test acc. EN ISO 29468:2022	tolerance +2/-2 mm with a thickness < 50 mm +3/-2 mm with a thickness ≥ 50 mm and ≤ 120 mm +6/-2 mm with a thickness > 120 mm ± 8 mm 5 mm/m 3 mm
Compressive stress at 10 % deformation or compressive strength test acc. to EN ISO 29469:2022	Level (individual values may fall below this level up to 10 %): ≥ 300 kPa
Density test acc. to EN ISO 29470:2020	density range: 35 kg/m³ - 40 kg/m³
Deformation under specified compressive load and temperature conditions test acc. to EN 1605:2013	load: 40 kPa; temperature: (70 ± 1) °C; time: (168 ± 1) h ≤ 5 %
Dimensional stability under specified conditions test acc. to EN 1604:2013	 temperature: 70 °C and 90% R.H. DS(70,90) ($\Delta\varepsilon_l \leq 5$ %, $\Delta\varepsilon_b \leq 5$ %, $\Delta\varepsilon_d \leq 5$ %)
Tensile strength perpendicular to faces test acc. to EN 1607:2013	 TR100 ($\sigma_{mt} \geq 100$ kPa)
Volume percentage of closed cells test acc. to EN ISO 4590:2016 (method 1 with correction)	≥ 95%
Shear strength test acc. to EN 12090:2013	≥ 150 kPa
Compressive creep	No performance assessed

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD 040650-00-1201, the applicable European legal act is: 1999/91/EC[1]

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.

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Frank Iffländer
Referatsleiter

beglaubigt:
Meyer

[1] as amended