Deutsches Institut für Bautechnik

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

European Technical Assessment Body for construction products

Member of EOTA
www.eota.eu

Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment)

European Technical Assessment ETA-25/0085 of 28 February 2025

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	EOLIS BR and EOLIS BR BOOST
Product family to which the construction product belongs	Thermal insulation products for buildings with radiant heat reflektive components
Manufacturer	ACTIS S.A. Avenue de Catalogne 11300 LIMOUX FRANKREICH
Manufacturing plant	ACTIS S.A. Avenue de Catalogne 11300 LIMOUX FRANKREICH ACTIS S.A. ZI du caraud, route de Lavelanet 09500 LA BASTIDE DE BOUSIGNAC FRANKREICH
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	040007-00-1201

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This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No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

This European Technical Assessment applies to the thermal insulation products with radiant heat reflective components "EOLIS BR" and "EOLIS BR BOOST", hereafter referred to as thermal insulation mats.

The thermal insulation multi-layer composite mats are made of a number of layers, depending from thickness (see below). Each layer consists of 4 aluminium-coated PE foils with 3 layers of PE woven fleece in between, connected by ultrasonic welding.

In addition, the mats have an outer top layer of a vapour-permeable membrane of polypropylene on one side and an external reinforced film on the other side.

The vapour-permeable membrane is black (“EOLIS BR”) or metallized ("EOLIS BR BOOST") and has a mass per unit area of 135 (± 10) g/m².

The thermal insulation mats are made with the following dimensions:

Nominal length: 8.0 m to 11.34 m

Nominal width: 1.50 mm

Nominal thicknesses[1]:

45 mm (2 layers of 4 foils and 3 fleeces + 1 outer top layer + 1 reinforced film)
65 mm (3 layers of 4 foils and 3 fleeces + 1 outer top layer + 1 reinforced film)
85 mm (4 layers of 4 foils and 3 fleeces + 1 outer top layer + 1 reinforced film)
105 mm (5 layers of 4 foils and 3 fleeces + 1 outer top layer + 1 reinforced film)
120 mm (6 layers of 4 foils and 3 fleeces + 1 outer top layer + 1 reinforced film)
135 mm (7 layers of 4 foils and 3 fleeces + 1 outer top layer + 1 reinforced film)

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 mats are intended to be used for the thermal insulation of walls, ceilings, floors and roofs in buildings. The mats are not to be exposed to compression loads.

The performances according to section 3 only apply if the undamaged thermal insulation mats are installed according to the manufacture's installation instructions and 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 thermal 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 040007-00-1201 "Thermal insulation products for buildings with radiant heat reflective components" apply.

[1] determined according to EN ISO 29466 with a load of 3 Pa

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire Test according to EN ISO 11925-2:2020	Class F according to EN 13501-1:2018

3.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance	
Thermal core resistance Test according to EN 12667:2001 in accordance with EN ISO 22097:2023[2]	Thickness [mm]	Thermal core resistance value R_D [a), b)] [m² K/W]
	45	1.40
	65	2.00
	85	2.65
	105	3.25
	120	3.75
	135	4.20
Durability of thermal resistance against ageing/ degradation	No performance assessed	
Emissivity Test according to EN ISO 22097:2023[2] after conditioning in accordance with EN ISO 22097, D.5.3.2	emissivity value [c)] external reinforced film: ε = 0.08 metallized membrane ("EOLIS BR BOOST"): ε = 0.31	
Water vapour diffusion resistance Test according to EN ISO 12572:2001	Thickness [mm]	s_d [m]
	45	0.55
	65	0.76
	85	0.97
	105	1.18
	120	1.39
	135	1.60
Water absorption	No performance assessed	
Watertightness Test according to EN 1928:2000, method A in accordance with EN 13859-1:2014, clause 5.2.3	Class W 1	
Geometry	Tolerances Length: -2% / + 5% Width: ± 2 % Thickness: -2% / + 5%	
Apparent density	10.5 kg/m³ ± 10 %	
Squareness	No performance assessed	
Dimensional stability	No performance assessed	

[2] EN ISO 22097:2023 replaced EN 16012:2012+A1:2015

Essential characteristic	Performance
Tensile strength parallel to faces Test according to EN 1608:2013	> 100 kPa
Tensile strength perpendicular to faces	No performance assessed
Resistance to tearing (nail shank) Test according to EN 12310-1:1999 Before ageing After ageing	longitudinal and transversal > 150 N No performance assessed
Peel Strength	No performance assessed
a) Declared value of core thermal resistance, representative for at least 90 % of the production with a confidence level of 90 %, based on a thickness measured with a load of 3 Pa. b) NOTE: The thermal resistance of the structural assembly (including possible adjacent airspaces) can be determined in accordance with EN ISO 6946 taking into account respective national regulations. c) Declared value of emissivity, representative for at least 90 % of the production with a confidence level of 90 %.	

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

In accordance with the European Assessment Document 040007-00-1201 "Thermal insulation products for buildings with radiant heat reflective components" 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 28 February 2025 by Deutsches Institut für Bautechnik

Frank Iffländer
Head of Section

beglaubigt:
Getzlaff