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-25/0312 of 28 April 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 HC
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 FRANCE ACTIS S.A. ZI du caraud, route de Lavelanet 09500 LA BASTIDE DE BOUSIGNAC FRANCE
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

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Specific part

1 Technical description of the product

This European Technical Assessment applies to the thermal insulation products with radiant heat reflective components "EOLIS HC", 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 reflective metallic foil on one side.

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 thickness[1]: 45 mm (2 layers of 4 foils and 3 fleeces + 1 outer reflective layer)
65 mm (3 layers of 4 foils and 3 fleeces + 1 outer reflective layer)
85 mm (4 layers of 4 foils and 3 fleeces + 1 outer reflective layer)
105 mm (5 layers of 4 foils and 3 fleeces + 1 outer reflective layer)
120 mm (6 layers of 4 foils and 3 fleeces + 1 outer reflective layer)
135 mm (7 layers of 4 foils and 3 fleeces + 1 outer reflective layer)

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 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 manufacturer'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.

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

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

3.6 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	1.45
	65	2.10
	85	2.70
	105	3.35
	120	3.85
	135	4.35
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)] outer reflective metallic foil: ε = 0.05 aluminium-coated PE foil: ε = 0.10	
Water vapour diffusion resistance Test acc. to EN ISO 12572:2001	Thickness [mm]	s_d [m]
	45	68
	65	69.5
	85	71
	105	72.5
	120	74
	135	75.5
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	8.5 kg/m³ ± 10 %	
Squareness	No performance assessed	
Dimensional stability	No performance assessed	
Tensile strength parallel to faces Test according to EN 1608:2013	> 50 kPa	
Tensile strength perpendicular to faces	No performance assessed	

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

Essential characteristic	Performance
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 / mechanical resistance of adhesive tape Test according to EN ISO 11339 With the adhesive tape "Hybris tape" on outer reflective metallic foil	> 20 N/mm (average value)
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 April 2025 by Deutsches Institut für Bautechnik

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Head of Section

beglaubigt:
Getzlaff