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European Technical Assessment Body
for construction products



European Technical Assessment

ETA-25/1070 of 15 January 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

FireSafe Skytherm, FireSafe Insulflex and Multivap Reflex Plus

Product family to which the construction product belongs

Thermal insulation products for buildings with radiant heat reflective components

Manufacturer

MAGE Roof & Building Components GmbH
An den Steinenden 7
04916 Herzberg (Elster)
GERMANY

Manufacturing plant

MAGE Roof & Building Components GmbH
An den Steinenden 7
04916 Herzberg (Elster)

This European Technical Assessment contains

5 pages which form an integral part of this assessment

This European Technical Assessment is issued in accordance with Article 95(4) of Regulation (EU) No 2024/3110, on the basis of

EAD 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 "FireSafe Skytherm", "FireSafe Insulflex" and "Multivap Reflex Plus", hereafter referred to as thermal insulation mats.

The thermal insulation multi-layer composite mats are made of pure aluminium foils and glass fibres.

The thermal insulation mats are made with the following dimensions:

Nominal length:	18000 mm	("FireSafe Skytherm")
	25000 mm	("FireSafe Insulflex")
	10000 mm	("Multivap Reflex Plus")
Nominal width:	1120 mm	("FireSafe Skytherm")
	1000 mm	("FireSafe Insulflex")
	1000 mm	("Multivap Reflex Plus")
Nominal thickness:	13 mm	("FireSafe Skytherm")
	7 mm	("FireSafe Insulflex")
	7,5 mm	("Multivap Reflex Plus")

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 used for the thermal insulation of walls, ceilings and roofs in buildings as follows.

- "FireSafe Skytherm": thermal insulation of walls and roofs
- "FireSafe Insulflex": internal thermal insulation of walls and ceilings
- "Multivap Reflex Plus": internal thermal insulation of walls and ceilings

The performance according to section 3 only applies if the undamaged thermal insulation mats are installed according to the manufacturer's installation instructions and if they 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 No 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 acc. to EN 13823:2020+A1:2022 "FireSafe Insulflex" "FireSafe Skytherm" "Multivap Reflex Plus"	Class A1 acc. to EN 13501-1:2018 Class A2-s1, d0 * acc. to EN 13501-1:2018 Class B-s1, d0 * acc. to EN 13501-1:2018
* The given classification is valid for the following conditions regarding the use of the thermal insulation product: Mechanically fixed on wood cleats with an airgap ≥ 40 mm to substrates with density ≥ 600 kg/m ³ , A1 or A2-s1, d0 acc. to EN 13501-1. Overlaying of seals with double-face adhesive coated stripes.	

3.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal core resistance test acc. to EN 16012:2012+A1:2015 "FireSafe Insulflex" "FireSafe Skytherm" "Multivap Reflex Plus"	thermal core resistance value ^{a)} $R_D = 0.25$ m ² K/W * $R_D = 0.45$ m ² K/W * $R_D = 0.227$ m ² K/W *
Durability of thermal resistance against ageing/ degradation	No performance assessed.
Emissivity test acc. to EN 16012:2012+A1:2015 "FireSafe Insulflex" "FireSafe Skytherm" "Multivap Reflex Plus"	emissivity value ^{b)} $\epsilon_{D,1} = 0.05$ $\epsilon_{D,2} = 0.05$ $\epsilon_{D,1} = 0.05$ $\epsilon_{D,2} = 0.07$ $\epsilon_{D,1} = 0.05$ $\epsilon_{D,2} = 0.06$
Water vapour diffusion resistance test acc. to EN ISO 12572:2016+A1:2024 "FireSafe Insulflex" "FireSafe Skytherm" "Multivap Reflex Plus"	No performance assessed. $S_d = 0.05$ m $S_d = 0.06$ m
Water absorption	No performance assessed.
Watertightness test acc. to EN 13859-1:2014 "FireSafe Insulflex" "FireSafe Skytherm" "Multivap Reflex Plus"	No performance assessed. Class W1 acc. to EN 13859-1:2014 Class W1 acc. to EN 13859-1:2014
Geometry	No performance assessed.

Essential characteristic	Performance
Apparent density/Mass per unit area	No performance assessed.
Squareness	No performance assessed.
Compressive stress or strength	No performance assessed.
Dimensional stability	No performance assessed.
Tensile strength parallel to faces	No performance assessed.
Tensile strength perpendicular to faces	No performance assessed.
Resistance to tearing (nail shank) test acc. to EN 12310-1:2025	maximum tensile strength
"FireSafe Insulflex"	No performance assessed.
"FireSafe Skytherm"	240 N
"Multivap Reflex Plus"	210 N
Peel Strength	No performance assessed.
Compressive creep	No performance assessed.
Behaviour under point load	No performance assessed.
<p>a) Declared value of core-thermal resistance, representative for at least 90 % of the production with a confidence level of 90 %, based on the smallest thickness (nominal thickness or measured thickness).</p> <p>b) Declared value of emissivity, representative for at least 90 % of the production with a confidence level of 90 %.</p> <p>* 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.</p>	

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 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

In addition, with regard to reaction to fire for products covered by this EAD the applicable European legal act is:

Commission Decision 2001/596/EC

The systems to be applied is: system 1

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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