

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

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European Technical Assessment

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of 13 June 2022

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

ALUJET Climajet SD VARIO

Product family
to which the construction product belongs

Membranes, including liquid applied and kits (for water
and/or water vapour control)

Manufacturer

ALUJET GmbH
Ahornstraße 16
82291 Mammendorf
DEUTSCHLAND

Manufacturing plant

Plant 1

This European Technical Assessment
contains

8 pages including 3 annexes 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

EAD 030271-00-0605

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Specific part

1 Technical description of the product

The humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" consist of three layers of plastic sheets with reinforcement nets. It is made of a fleece, a membrane and is reinforced with a polypropylene fabric.

Dimensions, thickness and mass per unit area see Annex 1.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" is used in compliance with the specifications and conditions given in Annex 1 to 3.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" 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

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Euroclass E

3.2 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Resistance to tearing (nail shank)	See Annex 1
Water vapour transmission properties	See Annex 3
Durability of water vapour transmission properties - artificial ageing through high temperature	See Annex 3
Tensile properties	See Annex 3
Durability of tensile properties - UV resistance and - artificial ageing through high temperature	See Annex 3
Air permeability	See Annex 3

English translation prepared by DIBt

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

In accordance with EAD No.030271-00-0605, the applicable European legal act is: [1999/90/EC(EU)].

The system to be applied is: 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 13 June 2022 by Deutsches Institut für Bautechnik

Anja Dewitt
Head of Section

beglaubigt:
Vössing

Annex 1 Technical description of the product

A.1.1 Dimension and tolerances

Length, width and straightness are determined in accordance with EN 1848-2¹. The deviation from straightness does not exceed 75 mm per 10 m length.

A.1.2 Thickness and mass per unit areas

The thickness in accordance with EN 1849-2 of the humidity-dependent vapour control layer is:

- 0.4 ± 0.15 mm for "ALUJET Climajet SD VARIO".

The mass per unit area in accordance with EN 1849-2 of the humidity-dependent vapour control layer is:

- 110 ± 20 g/m² for "ALUJET Climajet SD VARIO".

A.1.3 Resistance to tearing (nail shank)

The resistance to tearing along and across the humidity-dependent vapour control layer of "ALUJET Climajet SD VARIO" in accordance with EN 13859-1², Annex A is: 200 N / 200 N.

1	DIN EN 1849-2:2010	Flexible sheets for waterproofing - Determination of thickness and mass per unit area - Part 2: Plastic and rubber sheets
2	DIN EN 13859-1:2014	Flexible sheets for waterproofing – definitions and characteristics of underlays; Part 1: Underlays for discontinuous roofing

ALUJET Climajet SD VARIO	Annex 1
Technical description of the product Dimension and tolerances, thickness and mass per unit area, resistance to tearing	

Annex 2 Specification of intended use

A.2.1 Use conditions (environmental conditions)

A.2.1.1 Condensation protection

The design of the construction is verified by means of hygrothermal simulation in accordance with EN 15026¹ using the initial values of the s_d -values (Table A.3.1).

A.2.1.2 Installation

The humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" is protected from UV radiation.

¹ EN 15026:2007 Hygrothermal performance of building components and building elements - Assessment of moisture transfer by numerical simulation

ALUJET Climajet SD VARIO	Annex 2
Specification of intended use Condensation protection and installation	

Annex 3 Specification of essential characteristics

A.3.1 Durability of water vapour transmission properties

The initial values of the s_d -values for the humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" tested in accordance with EN ISO 12572¹ meet the values in Table A.3.1.

The ageing values of the s_d -values for the humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" tested in accordance with EN 1296² and the test plan deposited with DIBt fulfil the values in accordance with Table A.3.1.

Table A.3.1: s_d -values of "ALUJET Climajet SD VARIO" in [m]

Conditionings / Arithmetic average of dry point and wet point	23°C, 0/50 % rel. hum. / 25 % rel. humidity [m]	23°C, 50/93 % rel. hum. / 71.5 % rel. humidity [m]	23°C, 85/95 % rel. hum. / 90 % rel. humidity [m]
Initial values	34 ± 20 %	1.7 ± 20 %	0.30 ± 40 %
Aged values	55 ± 20 %	2.0 ± 20 %	0.30 ± 40 %

¹ EN ISO 12572:2016 Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method

² EN 1296:2001 Flexible sheets for waterproofing. Bitumen, plastic and rubber sheets for roofing. Method of artificial ageing by long term exposure to elevated temperature

ALUJET Climajet SD VARIO	Annex 3.1
Specification of essential characteristics Water vapour transmission properties	

A.3.2 Durability of tensile properties for humidity-dependent vapour control layer "ALUJET Climajet SD VARIO"

The initial values and the aged values of the maximum tensile force and the maximum tensile force elongation for the humidity-dependent vapour control layer "ALUJET Climajet SD VARIO" determined in accordance with Annex A of EN 13859-1 correspond to the values in Table A.3.2 for both the longitudinal and transversal directions of the sheet.

Table A.3.2: Minimum tensile strength of "ALUJET Climajet SD VARIO" according to EN 13859-1

"ALUJET Climajet SD VARIO"	longitudinal		transversal	
	strength FH [N / 50 mm]	elongation εH [%]	strength FH [N / 50 mm]	elongation εH [%]
Initial values	340	15	220	15
Aged values	330	13	210	13

A.3.3 Air permeability

The maximum air permeability Q_{50} [$\text{m}^3/(\text{m}^2 \cdot \text{h} \cdot 50 \text{ Pa})$], tested in accordance with EN 13859-2³, clause 4.3.4 and EN 12114⁴ with edge gluing on steel frame with adhesive tape, expressed in maximum area-related reference air permeability at 50 Pa see Table A.3.3.

Table A.3.3: Maximum air permeability of "ALUJET Climajet SD VARIO"

	Max. air permeability Q_{50} [$\text{m}^3/(\text{m}^2 \cdot \text{h} \cdot 50 \text{ Pa})$]
"ALUJET Climajet SD VARIO"	0.0095

³ EN 13859-2:2014 Flexible sheets for waterproofing – Definitions and characteristics of underlays – Part 2: Underlays for walls

⁴ EN 12114:2000 Thermal performance of buildings – Air permeability of building components and building elements

ALUJET Climajet SD VARIO	Annex 3.2
Specification of essential characteristics Tensile properties and air permeability	