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European Technical Assessment Body  
for construction products



## European Technical Assessment

ETA-24/0122  
of 17 May 2024

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

TargoVARIVAP N

Product family to which the construction product belongs

Humidity-dependent vapour control layer

Manufacturer

Targo Specialty Products AG  
Brüelstraße 23  
8932 METTMENSTETTEN  
SCHWEIZ

Manufacturing plant

F12 und F13

This European Technical Assessment contains

6 pages including 1 annex 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 TargoVARIVAP N is a multi-layer composite with one-sided fleece.

The thickness of the humidity-dependent vapour control layer is  $0.14 \text{ mm} \pm 0.05 \text{ mm}$  and the mass per unit is  $75 \text{ g/m}^2 \pm 5 \text{ g/m}^2$ .

### 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 TargoVARIVAP N is used in compliance with the specifications and conditions given in Annex 1. 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 TargoVARIVAP N 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         | Class E in accordance with EN 13501-1 <sup>1</sup> |

#### 3.2 Safety and accessibility in use (BWR 4)

| Essential characteristic  | Performance             |
|---|-------------------------|
| Resistance to tearing (nail shank)  | See Annex 1.2.1         |
| Water vapour transmission properties  | See Annex 1.2.2         |
| Durability of water vapour transmission properties<br>- artificial ageing by long-term exposure to elevated temperature           | See Annex 1.2.2         |
| Tensile properties  | See Annex 1.2.3         |
| Durability of tensile properties<br>- artificial ageing by long-term exposure to elevated temperature and exposure to UV and heat | See Annex 1.2.3         |
| Air permeability  | No performance assessed |
| Water tightness   | No performance assessed |
| Resistance to impact  | No performance assessed |
| Durability<br>- chemical resistance   | No performance assessed |
| Joint strength  | No performance assessed |
| Dangerous substances  | No performance assessed |

<sup>1</sup> EN 13501:2018

Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

**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)] amended by Commission decision [2001/596/EC].

The system to be applied is: 3

For reaction to fire 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 17 May 2024 by Deutsches Institut für Bautechnik

Anja Dewitt  
Head of Section

*beglaubigt:*  
Vössing

## Annex 1.1 Specification of intended use

EN 1995-1-1<sup>1</sup> applies for the installation of the humidity-dependent vapour control layer TargoVARIVAP N. The humidity-dependent vapour control layer TargoVARIVAP N is protected from UV radiation.

## Annex 1.2 Specification of essential characteristics

### A.1.2.1 Resistance to tearing (nail shank)

The resistance to tearing in longitudinal direction of the humidity-dependent vapour control layers of TargoVARIVAP N in accordance with EN 12310-1<sup>2</sup> is: 35 N.

The resistance to tearing in transverse direction of the humidity-dependent vapour control layers of TargoVARIVAP N in accordance with EN 12310-1 is: 40 N.

### A.1.2.2 Durability of water vapour transmission properties – artificial ageing by long-term exposure to elevated temperature

The initial values of the  $s_d$ -values for the humidity-dependent vapour control layer TargoVARIVAP N tested in accordance with EN ISO 12572<sup>3</sup> meet the values in Table A.1.2.2.

The values after artificial ageing of the  $s_d$ -values for the humidity-dependent vapour control layer TargoVARIVAP N tested in accordance with EN 1296<sup>4</sup> meet the values in accordance with Table A.1.2.2.

Table A.1.2.2:  $s_d$ -values of TargoVARIVAP N 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. / 72 % rel. humidity [m] | 23°C, 83/97% rel. hum. / 90 % rel. humidity [m] |
|---|--|---|---|
| Initial mean values   | 17.9 ± 20 %                                    | 0.62 ± 20 %                                     | 0.10 ± 40 %                                     |
| Mean values after artificial ageing (Storage at 80(±2) °C for 24 weeks) | 19.3 ± 20 %                                    | 0.83 ± 20 %                                     | 0.17 ± 40 %                                     |

<sup>1</sup> EN 1995-1-1: 2004+AC:2006+A1:2008+A2:2014

<sup>2</sup> DIN EN 12310-1:1999

<sup>3</sup> EN ISO 12572:2017

<sup>4</sup> EN 1296:2000

Eurocode 5: Design of timber structures – Part 1-1: General - Common rules and rules for buildings

Flexible sheets for waterproofing – Part 1: Bitumen sheets for roof waterproofing; determination of resistance to tearing (nail shank)

Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method

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

|  |           |
|--|-----------|
| TargoVARIVAP N                             | Annex 1.1 |
| Specification of essential characteristics |           |

### A.1.2.3 Durability of tensile properties – artificial ageing by long-term exposure to elevated temperature and exposure to UV and heat

The initial values and the values after artificial ageing of the maximum tensile force and the maximum tensile force elongation for the humidity-dependent vapour control layer TargoVARIVAP N determined in accordance with EN 13984<sup>5</sup> and EN 13859-1<sup>6</sup> correspond to the values in Table A.1.2.3 for both the longitudinal and transversal directions of the sheet. The specifications of the test standard with regard to the number and selection of test specimens have been fully complied with.

Table A.1.2.3: Values of tensile force and elongation at maximum force before and after exposure

| TargoVARIVAP N   | longitudinal                  |                                | transversal                   |                                |
|--|-------------------------------|--------------------------------|-------------------------------|--------------------------------|
|  | strength $F_H$<br>[N / 50 mm] | elongation $\epsilon_H$<br>[%] | strength $F_H$<br>[N / 50 mm] | elongation $\epsilon_H$<br>[%] |
| Initial mean values  | 180                           | 26                             | 180                           | 26                             |
| Mean values after artificial ageing (Elevated temperature) | 180                           | 26                             | 180                           | 26                             |
| Mean values after artificial ageing (UV and heat)          | 120                           | 3                              | 90                            | 2                              |

<sup>5</sup> EN 13984:2013

Flexible sheets for waterproofing – Plastic and rubber vapour control layers – Definitions and characteristics

<sup>6</sup> EN 13859-1:2014

Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 1: Underlays for discontinuous roofing

|  |           |
|--|-----------|
| TargoVARIVAP N                             | Annex 1.2 |
| Specification of essential characteristics |           |