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European Technical Assessment Body
for construction products



European Technical Assessment

ETA-22/0388
of 24 February 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

DELTA-XX PLUS® L

Product family to which the construction product belongs

Membranes for use as roof and wall underlays

Manufacturer

Dörken GmbH & Co. KG
Wetterstraße 58
58313 Herdecke
DEUTSCHLAND

Manufacturing plant

Dörken GmbH & Co. KG
Wetterstraße 58
58313 Herdecke
DEUTSCHLAND

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 Article 95(4) of Regulation (EU) No 2024/3110, on the basis of

EAD 030218-01-0402

This version replaces

ETA-22/0388 issued on 11 October 2022

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Specific Part

1 Technical description of the product

"DELTA-XX PLUS® L" is a lightweight, diffusion-open 3-layer roof and wall underlay made of two polypropylene special non-woven fabrics (PP) and a vapour-permeable polyurethane functional film (TPU).

"DELTA-XX PLUS® L" is provided with a factory-integrated self-adhesive zone along both edges (integrated self-adhesive edges).

The membranes do not contain any substances that are intended to inhibit or prevent root penetration (root protection agents)¹.

The roof and wall underlay membranes are fastened to the timber joists with nails or screws, e. g., by means of nailed or screwed counter battens.

For an adequate application of product – depending on the specific roof or facade design, e. g., roof slope, roof or wall built-up, details – other adjuvants may be needed, e. g., mastic sealant, adhesive tapes, nail-sealing tapes. These adjuvants are given in the manufacturer's technical documents².

An additional product description is given in Annex A.

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

The membranes are intended for use as roof underlays under roof coverings of discontinuous roofs and as wall underlays, which are to be used in walls behind outside wall coverings in order to avoid penetration of wind and water from outside.

In the technical documents, the manufacturer gives information regarding the substrates, roof or wall constructions, roof or wall coverings, roof pitches, and exposure time to weathering for which the product is suitable.

The performance given in Section 3 is only valid if the underlay membranes are used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the underlay membranes 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

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance	
	Roof underlays	Wall underlays
Reaction to fire	See Annex A	
External fire performance of roofs	See Annex A	Not applicable

¹ Manufacturer's statement.

² The manufacturer's technical documents comprise all information necessary for the production and the installation of the product as well as for the repair and it is deposited with DIBt.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance	
	Roof underlays	Wall underlays
Resistance to water penetration	See Annex A	
Water column resistance	See Annex A	
Water vapour transmission properties	See Annex A	
Tensile properties	See Annex A	
Resistance to tearing	See Annex A	
Hail resistance	See Annex A	Not applicable
Dimensional stability	See Annex A	
Flexibility at low temperature	See Annex A	
Resistance to penetration of air	See Annex A	
Water tightness of seams	See Annex A	
Emissivity	See Annex A	
Tightness of perforations from nails and screws	See Annex A	Not applicable
Content, emission and/or release of dangerous substances	See Annex A	Not applicable

3.3 Aspects of durability

Essential characteristic	Performance	
	Roof underlays	Wall underlays
Artificial ageing behaviour by exposure to combination of UV radiation (336 h) and elevated temperature and to heat	See Annex A	
High heat resistance	See Annex A	
Artificial ageing behaviour by exposure to combination of UV radiation (5000 h) and elevated temperature and to heat	See Annex A	
Artificial ageing behaviour by prolonged exposure to heat with accelerated air-speed 5±2 m/s	See Annex A	

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

In accordance with EAD No. 030218-01-0402, the applicable European legal act is: Decision 1999/90/EC.

The system to be applied is: 3

In addition, with regard to reaction to fire for products covered by this EAD the applicable European legal act is: Decision 1999/90/EC, as amended by 2001/596/EC.

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 24 February 2026 by Deutsches Institut für Bautechnik

Bettina Hemme
Head of Section

beglaubigt:
Hannoun

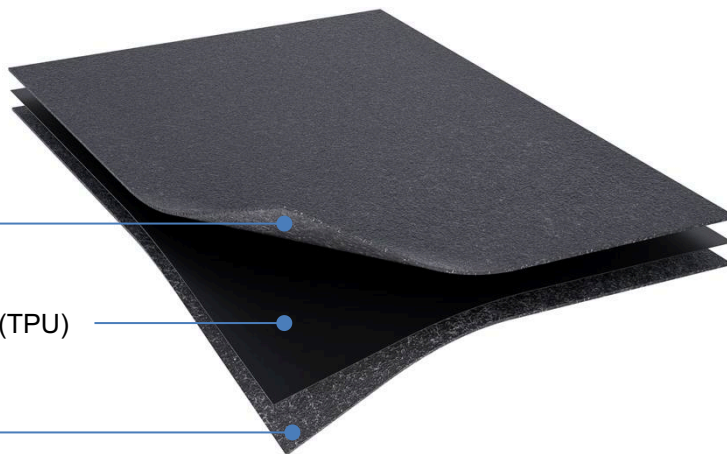
Description of the underlay membrane "DELTA-XX PLUS® L"

Built-up:

polypropylene special non-woven (PP)

vapour-permeable polyurethane functional film (TPU)

polypropylene special non-woven (PP)



Length	50 m (- 0 %)
Width	1.5 m (+ 1.5 / - 0.5 %)
Straightness	≤ 30 mm/10 m
Mass per unit area	130 g/m ² (+ 20 / - 10 %)

Performance of the underlay membrane "DELTA-XX PLUS® L"

Essential characteristic	Performance
Reaction to fire	Class E – d2 ¹⁾
External fire performance of roofs	NPA
Resistance to water penetration	Class W1 ²⁾
Water column resistance	NPA
Water vapour transmission properties (S _d)	0.08 ± 0.02 m
Tensile properties	
Maximum tensile force	longitudinal / transverse 270 N/50 mm / 220 N/50 mm
Elongation	longitudinal / transverse 80 % / 80 %
Resistance to tearing	longitudinal / transverse 165 N / 180 N
Hail resistance (damaging velocity v _d)	NPA
Dimensional stability	longitudinal / transverse ≤ 2 % / ≤ 2 %

¹⁾ Class according to EN 13501-1

²⁾ Class according to EN 13859-1

DELTA-XX PLUS® L
Dörken GmbH & Co. KG

Description and performance of product

Annex A1

Performance of the underlay membrane "DELTA-XX PLUS® L" (continued)		
Essential characteristic	Performance	
Flexibility at low temperature	- 45 °C	
Resistance to penetration of air	NPA	
Water tightness of seams seams with "integrated self-sealing edges"	Watertight (2 h, 200 mm water column)	
Emissivity (ϵ_n)	NPA	
Tightness of perforations from nails and screws	NPA	
Content, emission and/or release of dangerous substances	NPA	
Artificial ageing behaviour by exposure to combination of UV radiation (336 h) and elevated temperature and to heat		
Resistance to water penetration after aging	Class W1 ²⁾ (resistant to artificial ageing; 336 h UV + 90 d at 70°C)	
Tensile properties after aging		
Maximum tensile force	longitudinal / transverse	240 N/50 mm / 190 N/50 mm
Elongation	longitudinal / transverse	80 % / 80 %
High heat resistance	NPA	
Artificial ageing behaviour by exposure to combination of UV radiation (5000 h) and elevated temperature and to heat		
NPA		
Artificial ageing behaviour by prolonged exposure to heat with accelerated air-speed 5±2 m/s		
Resistance to water penetration after aging	Class W1 ²⁾ (resistant against prolonged exposure to heat with accelerated air-speed 5 ±2 m/s; 64 weeks at 70 °C)	
(NPA: no performance assessed)		
2) Class according to EN 13859-1		
DELTA-XX PLUS® L Dörken GmbH & Co. KG		Annex A2
Performance of product		

Installation

The performance of the underlay membrane can be assumed only, if the installation is carried out according to the installation instructions stated in the technical documents of the manufacturer, in particular taking account of the following points:

- installation by appropriately trained personnel;
- installation with the required tools and adjuvants;
- precautions during installation;
- inspecting the substrate in the overlapping (and bonding) areas which shall be clean, dry and free of dust, frost and grease;
- inspecting the roof structure for sufficient stability;
- inspecting compliance with suitable weather conditions, e. g. gluing of overlaps at $\geq +5\text{ °C}$;
- appropriate fixation in accordance with manufacturer's instructions, e.g. permanent fixation with nailed or screwed counter battens, maximum / minimum fixing distances;
- treatment of details in accordance with manufacturer's instructions, e.g. eave, ridge, free end.

DELTA-XX PLUS® L
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Intended use
Specifications for the installation

Annex B