

SINTEF Building and Infrastructure confirms that

## DELTA-VENT WB

has been found to be fit for use in Norway and to meet the provisions regarding product documentation given in the regulation relating to the marketing of products for construction works (DOK) and regulations on technical requirements for building works (TEK), with the properties, fields of application and conditions for use as stated in this document

### 1. Holder of the approval

Dörken GmbH & Co. KG  
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 DE-58313 Herdecke  
 Germany  
[www.doerken.de](http://www.doerken.de)

### 2. Manufacturer

Dörken GmbH & Co. KG  
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### 3. Product description

DELTA-VENT WB wind barrier is made of a breathable polyethylene film sandwiched between two layers of polypropylene fibre cloth. The weight is about 120 g/m<sup>2</sup> and the color is white and grey.

DELTA-VENT WB is supplied in rolls of 25 m or 50 m length and a width of 1.3 m or 2.8 m.

The product is CE marked according to EN 13859-2.

### 4. Fields of application

DELTA-VENT WB is used as an external wind barrier in thermal insulated wooden walls with aerated cladding and in wooden roofs, see fig. 1 and fig. 2.

DELTA-VENT WB can be used in buildings in fire class 1, and housing up to 3 floors where each unit has direct access to terrain (not via stairs or stairwells). The wind barrier can be used in fire class 2 and 3 if the fire safety is documented by fire assay.

DELTA-VENT WB is not designed to be used as a combined roofing underlay and wind barrier. See section 7 for conditions for use.

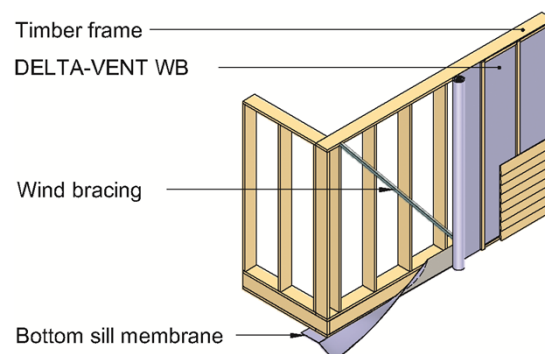


Fig. 1

DELTA-VENT WB used in a timber frame wall

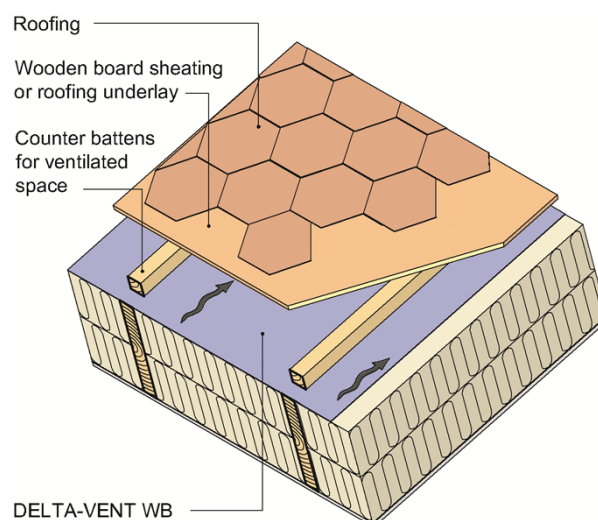


Fig. 2

DELTA-VENT WB used in a thermal insulated roof construction

### 5. Properties

#### General

Product characteristics are shown in Table 1.

Table 1  
Product characteristics for DELTA-VENT WB

Property	Test method	DoP <sup>1)</sup>	Control limit <sup>2)</sup>	Unit
Watertightness, material	EN 1928 EN 13859-2	W1	W1	-
Air tightness, material	EN 12114 EN 13859-2		≤ 0.25	m <sup>3</sup> /m <sup>2</sup> h50Pa
Air tightness, construction - Horizontal installation 2.8 m - Vertical installation 1.3 m	EN 12114 EN 13859-2		≤ 0.1 <sup>3)</sup> ≤ 0.15 <sup>3)</sup>	m <sup>3</sup> /m <sup>2</sup> h50Pa
Water vapour resistance s <sub>d</sub> -value	EN ISO 12572 EN 13859-2	< 0.04 (+0.04/-0.01)	< 0.08	m
Tensile strength - Longitudinally - Cross direction	EN 12311-1 EN 13859-2	210 ± 20 % 125 ± 20 %	≥ 168 ≥ 100	N / 50 mm N / 50 mm
Elongation - Longitudinally - Cross direction	EN 12311-1 EN 13859-2	20-100 20-100	≥ 20 ≥ 20	% %
Resistance to tear – nail shank - Longitudinally - Cross direction	EN 12310-1 EN 13859-2		≥ 100 ≥ 130	N N
Dimensional stability - Longitudinally - Cross direction	EN 1107-2 EN 13859-2		2.0 0.8	% %

<sup>1)</sup> Manufacturers Declaration of Performance, DoP

<sup>2)</sup> Control limit shows the values the product has to satisfy during internal factory production control and audit testing

<sup>3)</sup> Determined by type testing

### General

DELTA-VENT WB has a water repellent surface.

### Air tightness

The airtightness of the wind barrier system makes it possible to fulfil any requirements regarding airtightness (n<sub>50</sub>) given in the building regulations and in the Norwegian passive house standards before the vapour barrier is mounted.

### Properties related to fire

DELTA-VENT WB is combustible and meets class F according to EN 13501-1.

### Durability

DELTA-WENT WB has satisfactory durability against weathering during a normal building period but has to be protected against direct sunlight in the finished construction.

## 6. Environmental aspects

### Substances hazardous to health and environment

The product contains no hazardous substances with priority in quantities that pose any increased risk for human health and environment. Chemicals with priority include CMR, PBT or vPvB substances.

### Waste treatment/recycling

The product shall be sorted as plastic-based materials on the building/demolition site. The product shall be delivered to an authorized waste treatment plant for material recovery.

### Environmental declaration

No environmental declaration (EPD) has been worked out for the product.

## 7. Special conditions for use and installation

### Installation

DELTA-VENT WB is installed on the external side of insulated wall constructions. All the joints shall have minimum 50 mm overlap. All the joints, edges and connections to other components shall be clamped against the studs, sills, rafters etc. with battens fixed with nails spaced at maximum 150 mm.

Incidentally the wind barrier shall be used according to principles given in Building Research Design Sheets no. 523.255 and 525.101.

## 8. Factory production control

DELTA-VENT WB is subject to supervisory factory production and product control according to contract between SINTEF Building and Infrastructure and Dörken GmbH & Co. KG concerning Technical Approval.

The manufacturer's quality management system is certified by TÜV Rheinland Cert GmbH according to ISO 9001:2008, certificate No. 01 100 041012/03, and according to ISO 14001:2004, certificate No. 01 104 042109/03.

### 9. Basis for the approval

The approval is based on verification of product properties from type testing documented in the following report:

- SINTEF Byggforsk. Rapport 3D047101, dated 21.04.2009

### 10. Marking

DELTA-VENT WB shall be marked on the packaging with the brand name, the manufacturer's name and a bar code for product identification including production date and time.

The approval mark for SINTEF Technical Approval No. 2586 may also be used.



Approval mark

### 11. Liability

The holder/manufacturer has sole product responsibility according to existing law. Claims resulting from the use of the product cannot be brought against SINTEF beyond the provisions of Norwegian Standard NS 8402.

### 12. Technical management

Project manager for this approval is Jan Ove Busklein, SINTEF Building and Infrastructure, dep. Architecture, building materials and constructions, Trondheim

for SINTEF Building and Infrastructure

A handwritten signature in blue ink that reads 'Hans Boye Skogstad'.

Hans Boye Skogstad  
Approval Manager