



TECHNICAL INFORMATION

Release 16 juni 2017 9:30 AM
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chapter documentation
See also www.ozeon.nl chapter technology for further technical information

Index

Fixing distances	4
Mechanical fixation on wooden constructions	6
Details	
Facade	9
Roofline	12
Detailing	14

DISTANCES BETWEEN FASTENING POINTS

In the chapter “Distances between fastening points” the maximum approved fixing distances for flat boards of Durable grade fixed to a wooden or aluminium substructure are defined. However the fixing distances can differ for each project as the fixing distance has to be calculated in accordance with the actual situation (i.e. building height, wind speed etc.).

Distances between fastening points in accordance with ETA approval

The table below shows the maximum fixing distances at a vertical timber substructure or aluminium substructure in accordance with ETA-07/0141 and ETA-08/0343.

Maximum fixing distances according approval

Fastening system	OZEON® 8 mm	
	Maximale horizontale asafstand (mm)	Maximale verticale asafstand (mm)
Torx screw according to specification	600	600
Rivet	600	600
Bonding system	The maximum span between the bonding strips at an 8 mm board will be 600 mm.	

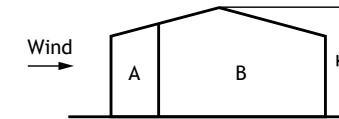
Determining the fixing distances

When determining the fixing distances the following variables should be taken into account:

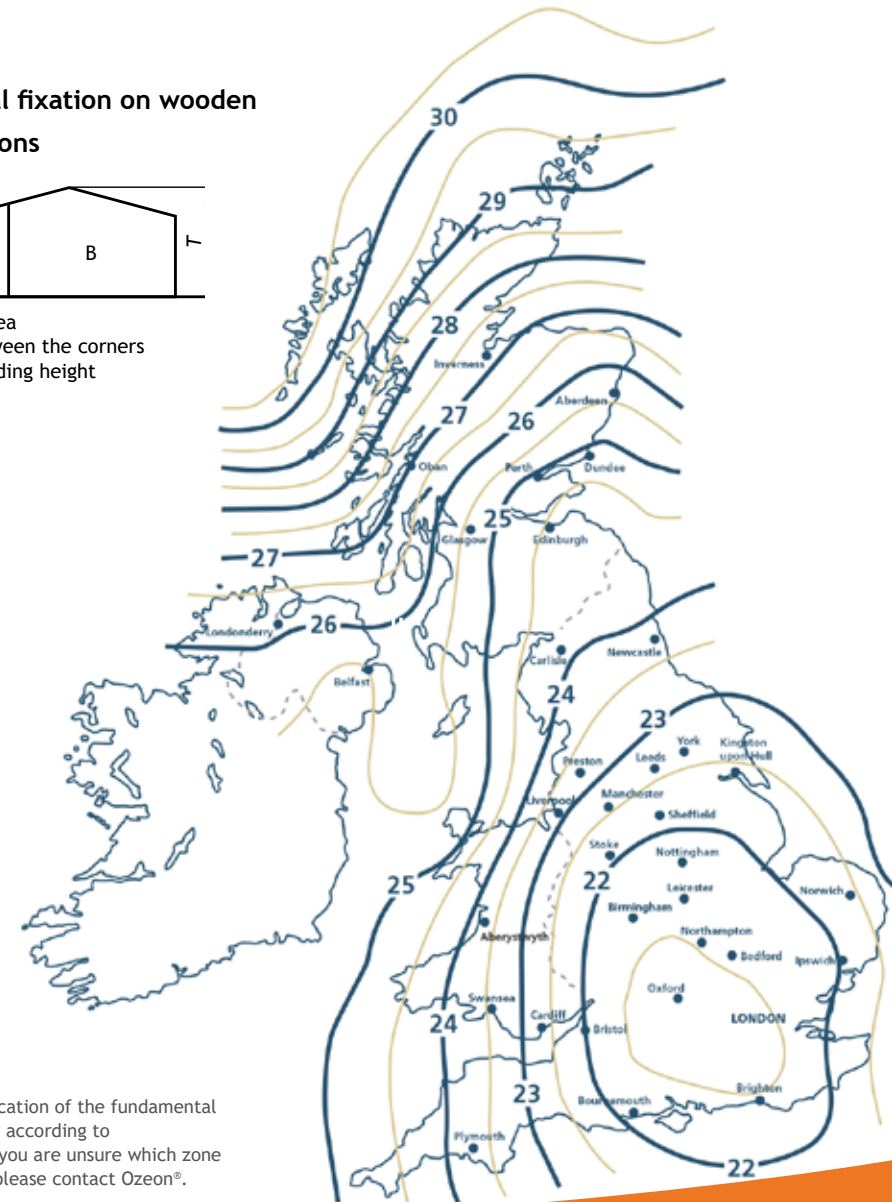
- Wind load
 - Determine the fundamental local basic wind velocity;
 - Determine the maximum height of the building;
 - Determine the site altitude;
 - Determine the distance from the coast;
 - Determine the distance to the town border.

- Building area: zone A (corner area) or zone B (area between corners). For details see the figure below.

Mechanical fixation on wooden constructions



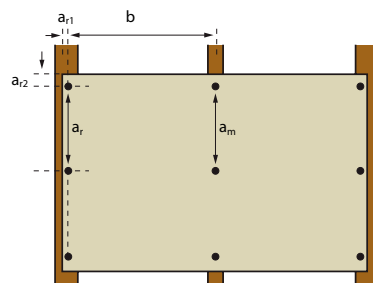
A = corner area
B = area between the corners
T = total building height



- This map is an indication of the fundamental basic wind velocity according to BE-EN 1991-1-4. If you are unsure which zone the building is in, please contact Ozeon®.

Fixing distances (mm) for OZEON®

- Location in country
- Distance from coast > 10 km
- Site altitude ≤ 50 m
- Building height ≤ 10 m
- Strength class timber: c24 according EN338
- Aluminium according approval
- $a_{r1} \geq 15$ mm
- $a_{r2} \geq 50$ mm

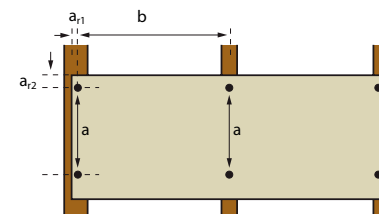


8 mm panels

Wind speed		22 m/s	23 m/s	24 m/s	25 m/s	26 m/s
	b	$a_m (a_r)$	$a_m (a_r)$	$a_m (a_r)$	$a_m (a_r)$	$a_m (a_r)$
Torx screw according to specification	600	330 (500)	-	-	-	-
	500	400 (600)	365 (550)	335 (505)	310 (465)	285 (430)
	400	500 (600)	455 (580)	420 (565)	385 (550)	355 (535)
Rivet onto Aluminium	600	405 (600)	-	-	-	-
	500	490 (600)	445 (580)	410 (565)	380 (550)	350 (535)
	400	600 (600)	560 (580)	515 (565)	475 (550)	435 (535)

Fixing distances (mm) for OZEON®

- Location in country
- Distance from coast > 10 km
- Site altitude ≤ 50 m
- Building height ≤ 10 m
- Strength class timber: c24 according EN338
- Aluminium according approval
- $a_{r1} \geq 15$ mm
- $a_{r2} \geq 50$ mm

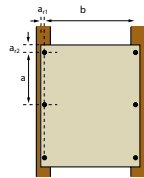


8 mm panels

Wind speed		22 m/s	23 m/s	24 m/s	25 m/s	26 m/s
	b	a	a	a	a	a
Torx screw according to specification	600	275	-	-	-	-
	500	350	310	280	250	220
	400	440	415	375	335	305
Rivet onto Aluminium	600	380	-	-	-	-
	500	440	425	385	345	315
	400	440	425	415	400	395

Fixing distances (mm) for OZEON®

- Location in country
- Distance from coast > 10 km
- Site altitude ≤ 50 m
- Building height ≤ 10 m
- Strength class timber: c24 according EN338
- Aluminium according approval
- $a_{r1} \geq 15$ mm
- $a_{r2} \geq 50$ mm



8 mm panels

Wind speed		22 m/s	23 m/s	24 m/s	25 m/s	26 m/s
	b	a	a	a	a	a
Torx screw according to specification	600	-	-	-	-	-
	500	-	-	-	-	-
	400	565	515	475	435	-
Rivet onto Aluminium	600	-	-	-	-	-
	500	-	-	-	-	-
	400	600	580	565	550	-

Adhesive installation

Adhesive installation of ROCKPANEL board material should be carried out according to the instructions of the adhesive system manufacturer and under the manufacturer's supervision and warranty conditions. In collaboration with the ROCKPANEL Group, Bostik has developed the ROCKPANEL Tack-S system (ETA 07/0141). For more information see the product data sheet on www.rockpanel.co.uk or consult the ETA 07/0141.

Details

Attachment methods:

Panel attachment also forms part of a certified system. The calculation values are laid down with the attachment methods as included in the European approval. It is therefore important to comply with this specification. See also www.ozeon.nl/bevestigingen. You will also find information on the use of adhesives here.

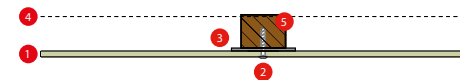
Specifications of the attachment methods are indicated in the detailed drawings as "Torx screw according to specification" and "Blind rivet according to specification":

Torx-Schraube gemäß Spezifikation	Blindniete gemäß Spezifikation
Torx screws Stainless steel material number 1.4401 or 1.4578	Flat-topped aluminium pop rivets ø 14mm AP14-50180-S Materiaal EN-AW-5019 in conformity with EN 755-2 Mandrel material number 1.4541 in conformity with EN 10088

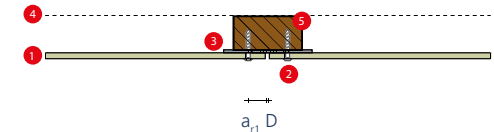
The attachments that can be used for Ozeon panels are the same as those for Rockpanel panels. These attachment methods are stated in the ETA certification.

FACADE

1a. Mechanically fixed on timber support,

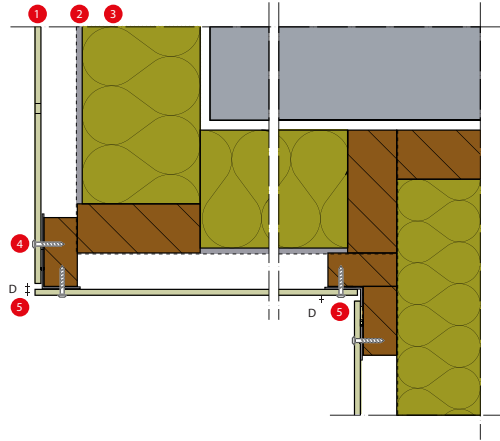


- 1 OZEON® 8 mm
- 2 Torx screw according to specification
- 3 EPDM gasket
- 4 Breathable membrane
- 5 Battens 28 x 45 mm



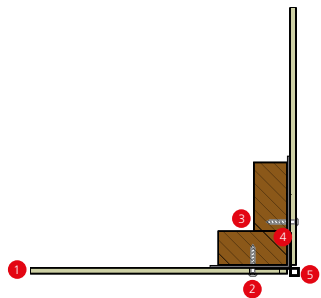
- 1 OZEON® 8 mm
- 2 Torx screw according to specification
- 3 EPDM gasket
- 4 Breathable membrane
- 5 Battens 28 x 70 mm
- D Assembly joint
- a_{r1} Edge distance:
≤ 8 mm: 15 mm

1b. Mechanically fixed to timber supports, internal and external corner



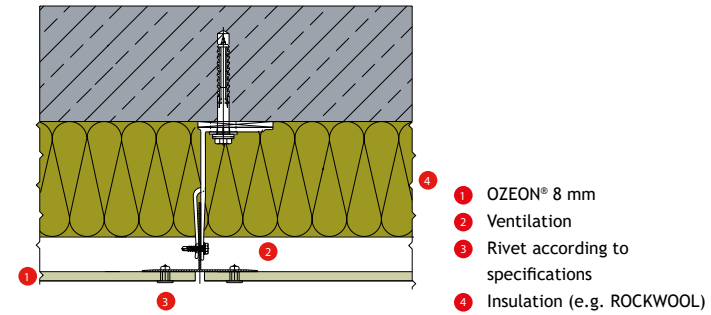
- | | |
|------------------------------|---|
| 1 OZEON® 8 mm | 4 Torx screw according to specification |
| 2 Breathable membrane | 5 EPDM gasket |
| 3 Insulation (e.g. ROCKWOOL) | D Assembly joint |

1c. Mechanically fixed to timber supports, with external corner profile.



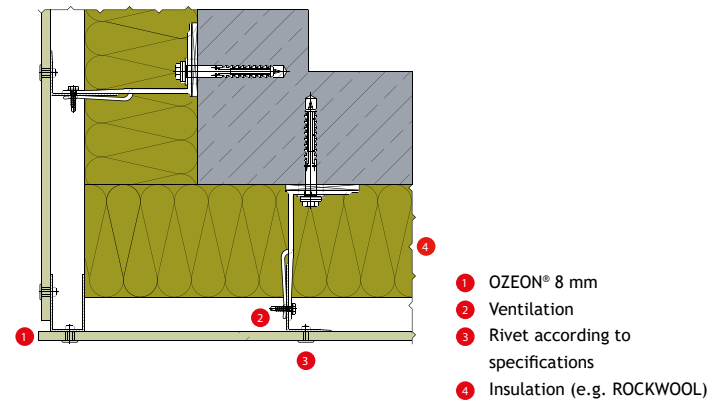
- | |
|---|
| 1 OZEON® 8 mm |
| 2 Torx screw according to specification |
| 3 Battens 28 x 70 mm |
| 4 EPDM gasket |
| 5 OZEON® corner profile type D |

2a. | Mechanically fixed to aluminium supports, abutment vertical joint



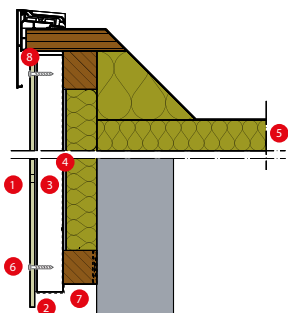
Important: For aluminium constructions in an open facade we recommend a cavity depth between 40 mm and 100 mm.

2b. | Mechanically fixed to aluminium supports, external



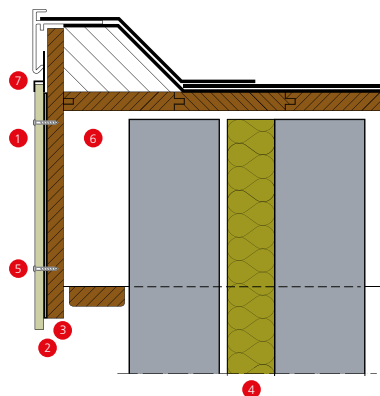
Roofline

3a. Mechanically fixed to timber supports, fascia board



- 1 OZEON® 8 mm
- 2 EPDM gasket
- 3 Battens 28 mm
- 4 Breathable membrane
- 5 Insulation (e.g. ROCKWOOL)
- 6 Torx screw according to specification
- 7 Ventilation profile
- 8 Ventilation

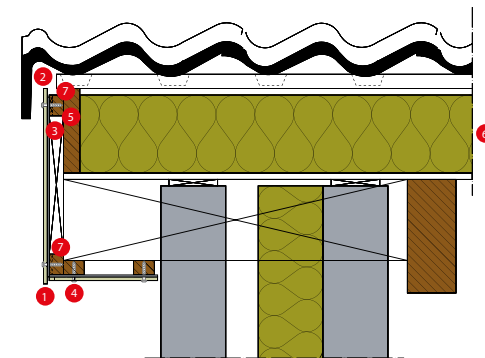
3b. Mechanically fixed to timber supports, fascia board renovation



- 1 OZEON® 8 mm
- 2 EPDM gasket
- 3 Wooden fascia board (in healthy condition)
- 4 Insulation (e.g. ROCKWOOL)
- 5 Torx screw according to specification
- 6 Ventilation
- 7 Chair profile

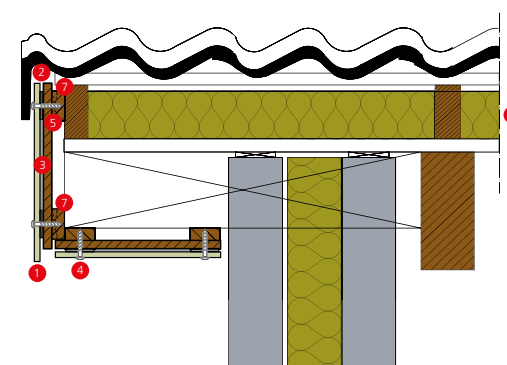
Attention: An EPDM gasket should be provided to ensure watertight connections at the point where the OZEON® sheet is fixed over the existing sub frame.

3c. Mechanically fixed to timber supports, soffit board new build



- 1 OZEON® 8 mm
- 2 Ventilation
- 3 EPDM gasket
- 4 Torx screw according to specification
- 5 Battens
- 6 Insulation (e.g. ROCKWOOL)
- 7 Ventilation gap in horizontal battens

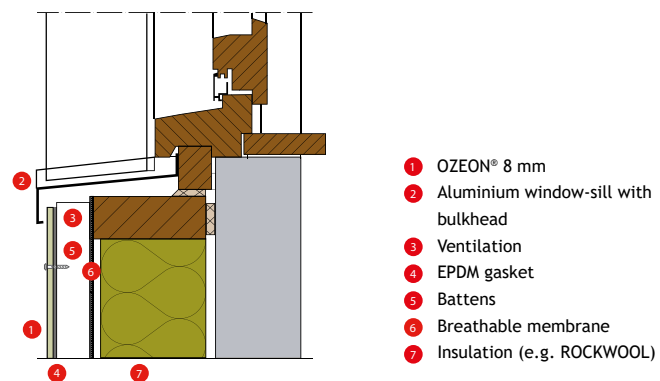
3d. Mechanically fixed to timber supports, soffit board renovation



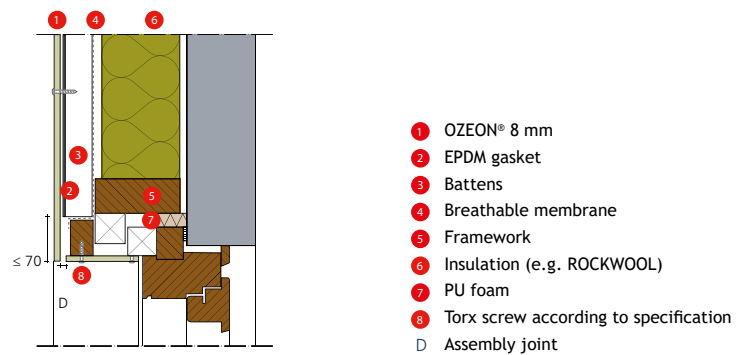
- 1 OZEON® 8 mm
- 2 Ventilation
- 3 EPDM gasket
- 4 Torx screw according to specification
- 5 Existing multi-ply cladding (in healthy condition)
- 6 Insulation (e.g. ROCKWOOL)
- 7 Ventilation gap in horizontal battens

Detailing

4a. Mechanically fixed to timber supports, junction at window-sill



4b. Mechanically fixed to timber supports, junction at window head



4c. Mechanically fixed to timber supports, connection at ground

