

Windstopper Extreme/Connect

Datasheet - Build Boards

Windstopper Extreme and Windstopper Connect is a special type of build board that features a windproof membrane for exterior walls. The board consists of grey cement and limestone filler, reinforced with a specially selected fiber material that can absorb and release moisture without affecting the durability, strength or performance of the board.

Windstopper Extreme and Windstopper Connect has a very low vapour transmission resistance, enabling moisture from inside the building to pass through. In consequence, insulation can be placed directly against the inner side of the board.

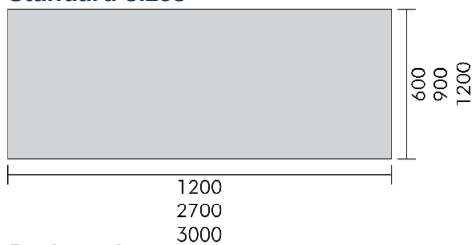
The board is powerfully resistant towards both rot and fungal growth and can withstand considerable fluctuations in weather and climate conditions. Adding to this, the Windstopper Extreme and Windstopper Connect is non-combustible. When installed according to Swisspearl installation instructions, Windstopper Extreme and Windstopper Connect will function as a temporary facade for up to 12 months.

Only for Windstopper Connect:

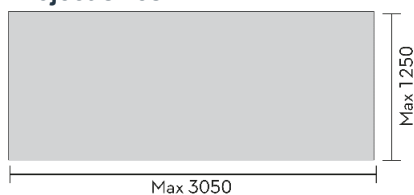
Windstopper Connect is produced with tongue and grooves on all 4 edges. A non-hardening butyl sealant is applied on the short groove of the board. A water-repellent surface treatment is applied on the front of the board.

Dimensions (nominal)		WSE 4,5mm	WSE 9mm	WSC 9mm
Thickness	mm	4,5	9	9
Width	mm	900	600	600
		1200	900	
Length	mm	2700	1200	1500
		3000	2700	
			3000	

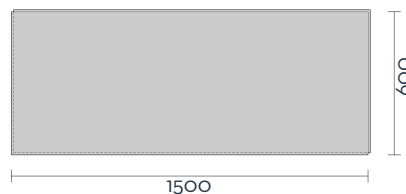
Standard sizes



Project sizes



Standard size (WSC)



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Windstopper Extreme/Connect

		WSE 4,5mm	WSE 9mm	WSC 9mm
Dimension tolerance (EN 12467, Level 1)				
Thickness (up to 20mm)	mm	± 0,6	± 0,9	± 0,9
Width (600mm <a< 1000mm)	mm	± 3	± 3	± 3
Width (1000mm <a< 1600mm)	mm	± 0,3% a	± 0,3% a	± 0,3% a
Length (1600mm < Length)	mm	± 5	± 5	± 5
Physical properties				
Density, dry (EN12467), minimum apparent	Kg/m ³	≥ 1400	≥ 1300	≥ 1300
Density, dry (EN12467), production average	Kg/m ³	1554	1375	1375
Weight average (Incl. 10% moisture)*	Kg/m ²	7,7	13,6	13,6
Air permability (EN 12114)	m ³ /m ² h Pa	≤ 0,05	≤ 0,05	≤ 0,05
Sound Insulation reduction (ISO 717-1-2013)	Rw (dB)	29	32	32
	Rw + C (dB)	28	31	31
	Rw + Ctr (dB)	25	28	28
* nominal value may vary depending on the conditions				
Mechanical properties (EN 12467)				
Flexural modulus				
E-module along grain, ambient	GPa	16,9	5,5	5,5
E-module across grain, ambient	GPa	16,1	12,9	12,9
E-module along grain, wet	GPa	7,6	2,3	2,3
E-module across grain, wet	GPa	8	5,8	5,8
Bending strength (EN 12467)				
Along grain, ambient	MPa	17,5	13,2	13,2
Across grain, ambient	MPa	22,1	16,4	16,4
Along grain, wet	MPa	7,9	5,5	5,5
Across grain, wet	MPa	11	7,4	7,4
Thermal properties				
Thermal conductivity (ISO 8301, EN 12667), λ10	W/(mK)	0,32	0,32	0,32
Coefficient of thermal expansion	mm/m °C	0,01	0,01	0,01
Frost resistance (min. Cycles R _L >0,75, EN12467)	Cycles	100	100	100
Frost resistance (average along/across)	R _L	>0,75	>0,75	>0,75

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WSE 4,5mm WSE 9mm WSC 9mm

Hygrothermal properties

Water absorption (24 hrs 105°C, 24 hrs in water)	%	19,9	21,3	21,3
Moisture movement (30/90 % RH, EN12467)	mm/m	0,55	0,42	0,42
Water impermeability (EN12467)	Visual	No water drops		

Water vapour transmission properties (EN 12572-C)

Vapour transmission resistance (Z-value)	GPa m² s/kg	2,1	2,7	2,7
Vapour transmission resistance	s/m	15600	19700	19700
Vapour diffusion equivalent air layer thickness	Sd (m)	0,41	0,50	0,50
Vapour resistivity	MN s/(gm)	448	301	301
Vapour resistance factor, μ		87	82	82
Vapour resistance	MN s/(gm)	2,1	2,7	2,7
Vapour transmission	USPerm	8,3	8,0	8,0

Impact Resistance test (EAD 090062-00-0404), 9 mm

		Max. Category IV	Category III	Category II	Category I
Hard body	1 Joule	Passed			
	3 Joules		Passed	Passed	Passed
	10 Joules			Passed	Passed
Soft body	10 Joules	Passed	Passed		
	60 Joules			Passed	Passed
	300 Joules			Not passed	
	400 Joules				Not passed
Evaluation		Passed	Passed	Not passed	Not passed

Fire properties

Reaction to fire (EN13501-1)	Rating	A1	A1	A1
Fire protection classification (EN13501-2)	Rating	NA	K1 10	K1 10
			K2 10	K2 10
			*K2 30	

* Two layer, 12mm Multi Force fixed directly to the substrate + 9mm Windstopper Extreme facing the fire exposure

Other properties

Category, Class (EN12467)	NT A1 I	NT A1 I	NT A1 I
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