



CERTIFICATE OF CONFORMITY

This is to certify that



ECOL-MEGA PANEL Privacy Walls

Product description
Freestanding privacy walls and fences, which incorporate ECOL-MEGA PANEL Reinforced Autoclaved Aerated Concrete (AAC) Panels, supported by galvanised steel posts set in concrete piers in the ground.
Product purpose or use
The product can be used for privacy walls and fences. Panels are 75mm thick and dimensions are 1200 X 600mm, 1800 X 600 mm, 2400 X 600 mm, 2550 X 600 mm, 2700 X 600 mm, 2850 X 600 mm, 3000 X 600 mm, 3300 X 600mm, or 100mm thick and dimensions are 2700 x 450 mm, 3000 x 450mm.
Certificate holder
One Stop Building and Hardware Pty Ltd and LiteW8 Pty Ltd 126 Days Road, Ferryden Park, SA 5010 – Tel: 08 8243 0930, web: www.osbh.com.au

Complies with the Building Code of Australia 2014:
Volume One BP 1.1 and BP1.2 in respect of structural performance, when designed and constructed in accordance with ECOL-MEGA PANEL Autoclaved Aerated Concrete Privacy Wall Manual, (Issue August 2013).
Volume Two P2.1.1 in respect of structural performance, when designed and constructed in accordance with ECOL-MEGA PANEL Autoclaved Aerated Concrete Privacy Wall Manual, (Issue August 2013).
State Additions or Variations
Nil
Subject to the following conditions and limitations:
1. Product selection, and incorporation into the building design, shall be made by a professional Engineer or other appropriate person who:



CodeMark Certification Body			<u>15/12/2011</u>	<u>2/3/2015</u>	<u>2/3/2018</u>	<u>GM-CM30024</u> <u>Rev D</u>
Global-Mark Pty Ltd, Suite 4.07, 32 Delhi Road, North Ryde NSW 2113, Australia - www.Global-Mark.com.au	Herve Michoux Managing Director	Unrestricted Building Certifier, Peter Gardner	Date of issue	Last update	Date of expiry	Certificate Number

This Certificate of Conformity is issued by an accredited certification body under arrangement with JAS-ANZ. The ABCB does not in any way warrant, guarantee or represent that the Product the subject of this Certificate of Conformity conforms with the BCA, nor accepts any liability arising out of the use of the Product. The ABCB disclaims to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this Certificate.

It is advised to check that this Certificate of Conformity is currently valid and not withdrawn, suspended or superseded by a later issue by referring to the ABCB website, www.abcb.gov.au

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- Has qualifications and experience acceptable to the relevant approval authorities; and
 - Has ready access to ECOL-MEGA PANEL Autoclaved Aerated Concrete Privacy Walls,(Issue August 2013), related to the product design and installation.
2. Product installation shall be carried out by a competent tradesman under the direction of a Builder, both of whom have ready access to ECOL-MEGA PANEL Autoclaved Aerated Concrete Privacy Walls (Issue August 2013), related to the product installation.
 3. Designed and installed in accordance with the requirements of Tables 1, 2, 3 and 4
 4. Installer must complete, sign and send to the Certificate Holder a Certificate of Installation when installation is completed.

Limit of the scope of certification

This certification does not include assessment for applications in flood hazard areas as per BCA Volume One Clause BP1.4 nor BCA Volume Two Clause P2.1.2 nor does it include BCA Volume Two QLD P2.1.3.

Certification applies only to those Building Code of Australia parts specifically mentioned. Parts omitted are not covered by the CodeMark certification. Omission should not be interpreted as either "the part does (or does not) apply to the specific building" or "the part does apply and the system does or does not conform".

Pier Details for 75 mm Panels

Table 1 - Required Depth of 450 mm Diameter Piers - For Free-Standing Privacy Walls & Fences							
Pier spacing, m	Soil friction, °	Height, m	Required Depth of Piers Wind Classifications, m				
B	Φ	H	N1 _f	N2 _f	N3 _f C1 _f	N4 _f C2 _f	N5 _f C3 _f
3.1	25	2.4	1.40	1.60	1.90	2.20	2.60
		2.1	1.30	1.48	1.76	2.04	2.41
		1.8	1.19	1.36	1.61	1.8	2.21
		1.5	1.07	1.22	1.45	1.68	1.99
		1.2	0.94	1.08	1.28	1.48	1.75
	30	2.4	1.30	1.48	1.6	2.04	2.41
		2.1	1.20	1.37	1.63	1.89	2.23
		1.8	1.10	1.26	1.49	1.73	2.04
		1.5	0.99	1.13	1.35	1.56	1.84
		1.2	0.87	1.00	1.19	1.37	1.62
	35	2.4	1.20	1.37	1.63	1.89	2.23
		2.1	1.11	1.27	1.51	1.75	2.07
		1.8	1.02	1.16	1.38	1.60	1.89
		1.5	0.92	1.05	1.25	1.44	1.71
		1.2	0.81	0.92	1.10	1.27	1.50
2.5	25	2.4	1.26	1.44	1.71	1.98	2.34
		2.1	1.17	1.34	1.59	1.84	2.17
		1.8	1.07	1.22	1.45	1.68	1.99
		1.5	0.96	1.10	1.31	1.52	1.79
		1.2	0.85	0.97	1.15	1.34	1.58
	30	2.4	1.17	1.33	1.58	1.84	2.17
		2.1	1.08	1.24	1.47	1.70	2.01
		1.8	0.99	1.13	1.35	1.56	1.84

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1.9	35	1.5	0.89	1.02	1.21	1.40	1.66
		1.2	0.79	0.90	1.07	1.24	1.46
		2.4	1.08	1.24	1.47	1.70	2.01
		2.1	1.00	1.15	1.36	1.57	1.86
		1.8	0.92	1.05	1.25	1.44	1.70
		1.5	0.83	0.95	1.12	1.30	1.54
	25	1.2	0.73	0.83	0.99	1.14	1.35
		2.4	1.12	1.28	1.51	1.75	2.07
		2.1	1.03	1.18	1.40	1.63	1.92
		1.8	0.95	1.08	1.29	1.49	1.76
		1.5	0.85	0.98	1.16	1.34	1.59
		1.2	0.75	0.86	1.02	1.18	1.40
	30	2.4	1.03	1.18	1.40	1.62	1.92
		2.1	0.96	1.09	1.30	1.51	1.78
		1.8	0.88	1.00	1.19	1.38	1.63
		1.5	0.79	0.90	1.07	1.24	1.47
		1.2	0.70	0.80	0.94	1.09	1.29
		35	2.4	0.96	1.09	1.30	1.50
2.1	0.89		1.01	1.20	1.39	1.65	
1.8	0.81		0.93	1.10	1.28	1.51	
1.5	0.73		0.84	0.99	1.15	1.36	
1.2	0.64		0.74	0.87	1.01	1.20	

Notes

- Calculations are based on 75 mm Reinforced AAC panels.
- Height is the clear height of the wall above ground surface.
- Design pressure is based on an aerodynamic shape factor, C_{fig} , of 1.20.

Table 2 - Thickness of 75 x 75 SHS Steel Post Section, Free-Standing Privacy Walls & Fences

Pier spacing, m	Height, m	Thickness of 75 x 75 SHS steel section, mm				
		N1 _f	N2 _f	N3 _f C1 _f	N4 _f C2 _f	N5 _f C3 _f
3.1	2.4	3.0	4.0	Design	Design	Design
	2.1	2.5	3.0	5.0	Design	Design
	1.8	2.5	2.5	3.5	5.0	Design
	1.5	2.5	2.5	2.5	3.5	6.0



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	1.2	2.5	2.5	2.5	2.5	3.5
2.5	2.4	2.5	3.0	5.0	Design	Design
	2.1	2.5	2.5	3.5	6.0	Design
	1.8	2.5	2.5	3.0	4.0	Design
	1.5	2.5	2.5	2.5	3.0	4.0
1.9	1.2	2.5	2.5	2.5	2.5	3.0
	2.4	2.5	2.5	3.5	6.0	Design
	2.1	2.5	2.5	3.0	4.0	Design
	1.8	2.5	2.5	2.5	3.0	5.0
	1.5	2.5	2.5	2.5	2.5	3.0
	1.2	2.5	2.5	2.5	2.5	2.5

Notes

- Calculations are based on 75 mm Reinforced AAC panels.
- Height is the clear height of the wall above ground surface.
- Design pressure is based on an aerodynamic shape factor, C_{fig} , of 1.20.

"Design" indicates that the 75 x 75 x 6.0 SHS has insufficient capacity, and a specific design using a stronger section should be carried out by the engineer.

Table 3 - Suitable ECOL-MEGA Reinforced AAC Panels, For Free-Standing Privacy Walls & Fences

Pier spacing, m	Suitable ECOL-MEGA Reinforced AAC Panels				
B	N1 _f	N2 _f	N3 _f C1 _f	N4 _f C2 _f	N5 _f C3 _f
3.1	75W37 75W30 100W18	100W18			
2.5	75W37 75W30 100W18	75W37 75W30 100W18	100W18		
1.9	75W37 75W30 100W18	75W37 75W30 100W18	75W37 75W30 100W18	75W30 100W18	100W18

Notes

- Calculations are based on 75 mm Reinforced AAC panels.
- Height is the clear height of the wall above ground surface.
- Design pressure is based on an aerodynamic shape factor, C_{fig} , of 1.20.
- In these cases, 75W30 panels are only suitable if the reinforcement is on the "lee" side, i.e. not facing the dominant wind.
- The standard post design must be modified if 100W18 panels (100 mm thick) are used.
- In those cases where a blank is shown in the table, the pier spacing must be further reduced.



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Table 4 – Load Capacities of ECOL-MEGA Reinforced AAC Panels for Privacy Walls and Fences

Product 75W37						
Bending strength	0.574	kN.m/600 mm panel			0.957	kN.m/m width
Panel length		3.0 m	2.7 m	2.4 m	2.1 m	1.8 m
Post spacing		3.1 m	2.8 m	2.5 m	2.2 m	1.9 m
Wind capacity		0.85 kPa	1.05 kPa	1.33 kPa	1.74 kPa	2.36 kPa
Classification	Pressure					
N1	0.83 kPa	OK	OK	OK	OK	OK
N2	1.15 kPa	Unsuitable	Unsuitable	OK	OK	OK
N3, C1	1.80 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	OK
N4, C2	2.68 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
N5, C3	3.94 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
N6, C4	5.33 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
Product 75W30 Weak direction						
Bending strength	0.436	kN.m/600 mm panel			0.727	kN.m/m width
Panel length		3.0 m	2.7 m	2.4 m	2.1 m	1.8 m
Post spacing		3.1 m	2.8 m	2.5 m	2.2 m	1.9 m
Wind capacity		0.65 kPa	0.80 kPa	1.01 kPa	1.32 kPa	1.79 kPa
Classification	Pressure					
N1	0.83 kPa	Unsuitable	Unsuitable	OK	OK	OK
N2	1.15 kPa	Unsuitable	Unsuitable	Unsuitable	OK	OK
N3, C1	1.80 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
N4, C2	2.68 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
N5, C3	3.94 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
N6, C4	5.33 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
Product 75W30 Strong direction						
Bending strength	0.712	kN.m/600 mm panel			1.187	kN.m/m width
Panel length		3.0 m	2.7 m	2.4 m	2.1 m	1.8 m
Post spacing		3.1 m	2.8 m	2.5 m	2.2 m	1.9 m
Wind capacity		1.05 kPa	1.30 kPa	1.65 kPa	2.15 kPa	2.93 kPa
Classification	Pressure					
N1	0.83 kPa	OK ^{Note 1}	OK ^{Note 1}	OK	OK	OK
N2	1.15 kPa	Unsuitable	OK ^{Note 1}	OK ^{Note 1}	OK	OK
N3, C1	1.80 kPa	Unsuitable	Unsuitable	Unsuitable	OK ^{Note 1}	OK ^{Note 1}
N4, C2	2.68 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	OK ^{Note 1}
N5, C3	3.94 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable
N6, C4	5.33 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable



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		Note 1: Suitable only if the reinforcement is on lee side, not facing dominant wind.					
Product	100W18						
Bending strength	0.827	kN.m/450 mm panel			1.838	kN.m/m width	
Panel length		3.0 m	2.7 m	2.4 m	2.1 m	1.8 m	1.5 m
Post spacing		3.1 m	2.8 m	2.5 m	2.2 m	1.9 m	1.6 m
Wind capacity		1.53 kPa	1.88 kPa	2.35 kPa	3.04 kPa	4.07 kPa	5.74 kPa
Classification	Pressure						
N1	0.83 kPa	OK	OK	OK	OK	OK	OK
N2	1.15 kPa	OK	OK	OK	OK	OK	OK
N3, C1	1.80 kPa	Unsuitable	OK	OK	OK	OK	OK
N4, C2	2.68 kPa	Unsuitable	Unsuitable	Unsuitable	OK	OK	OK
N5, C3	3.94 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	OK	OK
N6, C4	5.33 kPa	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Unsuitable	OK

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