

Blanmore Test Laboratories



A division of Ezi Batten Pty Ltd
A.C.N. 19 724 409 932

Low-High-Low Testing of Metal Roofing Products

Application for product testing

Please complete the information box below. In order to quote the costs of the test procedures and the report, Blanmore Test Laboratories requires detailed information on the specifications and use of the product. The low-high low test regime applies a cyclic load calculated to approximate to the passage of cyclonic winds. A pass for the test cycle is given if the structure remains secure. Some deformation is tolerated. A test failure is defined as a failure of the product to remain secured in place through the entire test cycle.

The test cycle comprise sequences of 4500, 600, 80, 1 cycles of increasing load and 80, 600, 4500 cycles of decreasing load.

Photographs of the products tested are provided in the test report.

- Client Name _____
- Contact Address _____
- Contact tel: _____
- Product Description _____
- Dimensions and gauge _____
- Test Standard required _____
- Wind rating required _____
- Number of test required _____
- Cladding type _____
- Literature and specifications _____ Supplied yes/no
- Installation instructions _____ Supplied yes/no
- We will advise the test samples needed from your company to complete the tests

Blanmore Test Laboratories

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The Blanmore Test Laboratories

The laboratory is equipped to carry out low-high-low compliance testing in accordance with the provisions of the Building Codes of Australia BCA 2007 testing regime. Compliance with these requirements is mandatory. The purpose is to test metal roof assemblies, its connections and immediate supporting members in a series of tests of progressively increasing and decreasing pressures that simulate the conditions within a cyclone in such a way as to ensure a consistent testing regime for metal roof cladding assemblies.

If a system does not successfully resist the fatigue loading sequence in the table shown below, it does not comply

Sequence	Number of cycles	Load applied
A	4500	0 - 0.45 Pt
B	600	0 - 0.6 Pt
C	80	0 - 0.8 Pt
D	1	0 - 1 Pt
E	80	0 - 0.8 Pt
F	600	0 - 0.6 Pt
G	4500	0 - 0.45 Pt

Notes

1	Pt is the ultimate limit state wind pressure on internal and external surfaces as determined in accordance with Table B1 AS/NZS 1170.0.
2	The rate of load cycling must be less than 3 Hz
3	The single load (sequence D) must be held for a minimum of 10 seconds

Blanmore Test Laboratories provide a test report detailing the results of the tests and in collaboration with John Towler RPEQ No 4562 reports are certified. Loads are calibrated using a certified mass, Associated Calibrations Report number 9959.

A number of test samples and fixing screws or assemblies that will be used in service will be required. The certification provided will be valid for those fixing means only and additional tests are required for other fittings or screws.

The number of test samples required will depend on the statistical probability of fixing failure. Essentially the more tests carried out the lower the test load requirement. The issues should be addressed at the enquiry stage.



Test Laboratory capability specifications

Test loads to 20 kN
 C and Z channel to 350mm
 Top hat sections to 150mm x 220mm
 Testing of cladding to batten
 Testing of batten to joist
 Cycle rate less than 2 cycles per second
 Photographic microscopy

Contact - John Towler RPEQ No 4562
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