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BTS2217 CERTIFICATE OF TEST: TR220907-1

An Assessment of the performance of the adhesion performance of the selected Waterproofing Membrane applied over the “aquamox tile backer board”

1. Objective:

- 1.1 BEAL Testing Services were contracted by Crest Group Ltd to verify that the performance of a typical liquid applied waterproofing membrane applied onto sheets of “aquamox tile backer board” will meet the performance requirements of the New Zealand Building Code.
- 1.2 Testing was carried out to assess the ability of the waterproofing membrane (tape to provide adhesion to the aquamox tile backer board before a waterproofing membrane was applied over.

2. Methodology:

- 2.1 This method is based on BTS Test Procedure TP104 – Flatwise Adhesion of a System, which has been derived from ASTM C297 - Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions.
- 2.2 This test procedure has been developed in accordance with ISO 17007.

3. Test Criteria:

- 3.1 The test results are to be assessed by a person of appropriate expertise from BEAL.

4. Test Equipment:

- 4.1 Use was made of a Tinius Olsen Universal Testing Machine together with a tape and a 100mm serigated face grip.

5. Preparation of Samples

- 5.1 A sample comprising a sheet of the aquamox tile backer board, with the tape adhered 50mm over the edge, was constructed.
- 5.2 The board was attached to the serigated face grip, and the tape with backing liner still attached, gripped by the tape grip. Refer photo 1.

6. Test Conditions:

6.1 Testing was conducted at room conditions.

7. Results:

Break Distance (mm)	Ultimate Force (N)	Mode of Failure
9.21	43.7	XPS Foam tear
5.53	34.7	XPS Foam tear
6.28	44.3	XPS Foam tear
6.08	37.8	XPS Foam tear
6.45	24.8	XPS Foam tear
5.98	36.3	XPS Foam tear
5.62	22.8	XPS Foam tear
8.56	29.7	XPS Foam tear
4.27	30.5	XPS Foam tear
7.34	50.2	XPS Foam tear
Average:	35.5	
SD:	8.62	

8. Comment:

8.1 None of the specimens showed any separation of the membrane to the backer board.

8.2 The results indicate acceptable adhesion of the membrane to the surface of the aquamox tile backer board.

9. Attachments:

9.1 Relevant Photos.



Colin Prouse – Building Scientist
Authorised signatory
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Client:	Crest Showers
Job Number:	BTS2217
TR #:	220907 - 1
Product Name:	Aquamox Wall Board
Acc. Aging:	yes

Standard:	ASTM C297
Speed:	4.00 mm/min
Test Start Date and Time:	
Graph Offset:	5.00 %
Tested by:	David C

Specimen #	Area mm ²	Ultimate Force N	Ultimate Stress MPa	Break Distance mm
2500		43.7	0.0175	9.21
2500		34.7	0.0139	5.53
2500		44.3	0.0177	6.28
2500		37.8	0.0151	6.08
2500		24.8	0.00993	6.45
2500		36.3	0.0145	5.98
2500		22.8	0.00913	5.62
2500		29.7	0.0119	8.56
2500		30.5	0.0122	4.27
2500		50.2	0.0201	7.34
Average		35.5		6.53
SD		8.82		1.47

