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11th March 2025

Our Ref: 240713.2
Client: Zammit Metal Roofing Pty Ltd
c/o: Mr. Joe Sultana
82 Glendenning Rd,
Glendenning
NSW 2761

Test Summary Sheet – 0.48mm bmt Rapid Lok sheeting profile for roof applications (Static wind load only)

Dear Mr. Joe Sultana,

The static test program for the 0.48mm bmt Rapid Lok sheeting profile was carried out by Gama Consulting Pty Ltd. We have acted on your behalf as the technical engineering consultant in relation to the Rapid Lok sheeting profile and its installation for Roof applications.

Description of Cladding and Set-Up Tested

- **Product name:** Rapid Lok sheeting profile by Zammit Metal Roofing Pty Ltd.
- **Cladding details:** 0.48mm bmt G550 cover width of 700mm, 40mm rib height (Approximate rib height).
- **Fixing clip details:** The brackets used to fix the cladding to the supports were manufactured from 0.78 mm TCT steel in strips approximately 775 mm long with 3 clips per bracket. The clips were manufactured from 1.24 mm TCT steel and have a trapezoidal shape with a rolled hook either side to engage the contour edges of the internal profile of the cladding ribs. The strip was approximately 40 mm wide with a 11 mm wide × 4.5 mm high stiffening bead along each side. The ends of the strips interlock to form a continuous strip.
- **Clip Fasteners:** The fasteners used to fix the clips to the supports were 5.5 mm, 11 threads per inch self-drilling batten zips with a length of 40 mm (M5.5-11 × 40 mm) and a 14 mm circular integral washer under an 8 mm hex drive head. The brackets were fixed to the supports at every clip in accordance with the client's installation manual.
- **Supports:** 1.0mm bmt G450 top hat battens. Strength of the supports was not evaluated.

Testing Result:

Sheeting Profile	Sheeting Thickness	Application	End Span (mm)	Internal Span (mm)	Strength Design PRESSURE CAPACITY (kPa)
Rapid Lok	0.48mm bmt	Roof	900	900	2.15
			1200	1200	2.05
			1800	1800	1.80

Notes:

- It is recommended that a local qualified structural engineer check the suitability of the provided Ultimate Limit State Design Wind Capacities provided in the load span table for the intended use/structure and site location.
- It is recommended that in the event of an extreme storm/extreme winds the cladding is inspected by a suitably qualified builder/engineer to confirm the adequacy of the cladding and fasteners post event.
- When the product is fixed over a solid substrate such as plywood the substrate and its fixings need to be designed to resist the forces induced by internal pressure and not the metal cladding provided the substrate effectively seals the roof area and the metal cladding is directly fixed to the substrate at its perimeter in addition to the regular fixing system. In this configuration the metal cladding would be required to resist the uplift forces induced by external suction pressures.

Summary:

The testing program has been carried out in accordance with the requirement of the National Code Construction Series (NCC, 2022). The results listed in the load span table above conform to the structural requirements of NCC and the following Australian Standards.

- AS 1562.1 – 2018: Design and Installation of sheet roof and wall cladding
  - Part 1: Metal
- AS 4040 – 1992: Methods of testing sheet roof and wall cladding
  - Part 0: Introduction, list of methods and general requirements
  - Part 2: Methods of testing sheet roof and wall cladding – Resistance to wind pressures for non-cyclonic regions

Matthew Mammone
Director