Cyclone Testing Station
College of Science and Engineering
James Cook University
Townsville Qld 4811 Australia

Telephone (07) 4781 4722
Email: jcu.cts@jcu.edu.au
www.jcu.edu.au/cts

SUMMARY OF TEST Results Sheet – TS943 Revision A

Expiry Date of Summary of Test Results Sheet: 30 June 2024

Cyclic simulated wind load strength testing was conducted on **Corona Shake** Metal Roof Tile System. The testing was performed with the use of new materials provided by **AHI Roofing** at the time of testing, currently **Roof TG Ltd.** This Revision A revised the change in company ownership to **Roof TG Ltd.**. The cyclic test regime in used in 2014 is identical to that currently specified in 2020.

Description of Metal Roof Tile System and Set-Up Tested

Product Name:	Corona Shake
Tile Details:	Stated to be 0.39 mm BMT G300 Zincalume steel sheeting with top surface coating of acrylic chips.
Tile Description:	1,320 mm long with cover length of 1,250 mm. Small ribs and water channel drainage channels along each panel to resemble timber shakes. Total width of 420 mm and cover width of 370 mm. Front edge turned down 20 mm sits on upturned back edge of down-slope tile. Rear of the panel has "tail" with 20 mm high vertical section and 35 mm wide horizontal section.
Tile Fasteners:	2.8 × 50 mm galvanised nail with a black colour coat.
Support Details:	Specified as F5 50 × 35 mm timber battens spaced at 370 mm centres. Fastened to MGP10 35 × 90 mm rafters spaced at 900 mm centres with one 14 × 100 mm Type 17countersinking batten screw.
Installation:	8 nails through front face of nose into side of batten spaced at 156 mm centres. 4 vertical nails through top face into top of batten spaced nominally in-between every second spacing so that vertical nails did not clash with nails in the front face.

Manufacturer's Details

Name of Manufacturer:	Roof TG Ltd.
Address of Manufacturer:	90-104 Felton Mathew Avenue, Auckland 1072, New Zealand

Report and Test Details

Report Details:	Cyclone Testing Station Report No. TS943 Revision A, dated 30 March 2020
Report Title:	Simulated Wind Load Testing of Metal Roof Tile System
Reappraised Test Regime:	Cyclic wind load to *NCC 2019 LHL*

Cyclic Simulated Wind Load Strength Test Results

Trial No.	Date Tested	Target Test Pressure P_t (kPa)	Result and Observations
C1	5/12/12	10.35	**Pass.** No observed permanent deformation of tile pans or elongation of nail holes in tiles. Upon removal of metal tiles from battens there was no observed crushing of battens at the batten to rafter screws but there were slight horizontal splits (approx. 10 mm long) in the front face of the battens at some of the nail holes from the nose nails.
C2	6/12/12	10.35	**Pass:** No observed permanent deformation of tile pans or elongation of nail holes in tiles. As an exploration of the cladding system, following the completion of Trial C2, the specimen was reloaded. Loading was increased until 11.56 kPa when the rafters split horizontally along their length through the central support bolt hole.

Conditions of Use

1. Refer to Report No. TS943 Revision A, (contact Roof TG Ltd.) for full details of the Metal Roof Tile System installation, test methods and results;
2. These test results are based on legislation and standards that are still current at the time of re-issue, but will only be applicable if the products that being currently manufactured are identical with regards material properties, assembly, profile/geometry etc, to those that were tested for the original test programme, as documented in the original report.

Signed .....

Mr. S. Ingham
CTS Authorizing Signatory

Date 1/04/2020

Dr. D. Henderson
Senior Research Fellow

Date 2/04/2020

NATA
WORLD RECOGNISED ACCREDITATION

Accredited Laboratory Number 14937
Accredited for compliance with ISO/IEC 17025 - Testing