

Storm, Wind and Rain

TESTED AND PROVEN IN STORMS, WIND AND RAIN
A PERFORMANCE REPORT

enduring roof systems crafted in nature's image



AHI ROOFING – TESTED AND PROVEN IN STORMS, WIND AND RAIN

Extreme weather – including violent storms, strong winds up to hurricane strength, and heavy rain – can cause widespread devastation. This report documents the performance of AHI Roofing systems under such extreme conditions.



THE STORM AND WIND TEST

- **The hurricane test** by Construction Research Laboratory, Inc., Miami, Florida, USA.

Testing was carried out in Florida, in the southern United States, an area which, because it experiences regular hurricanes, has strict regulations.

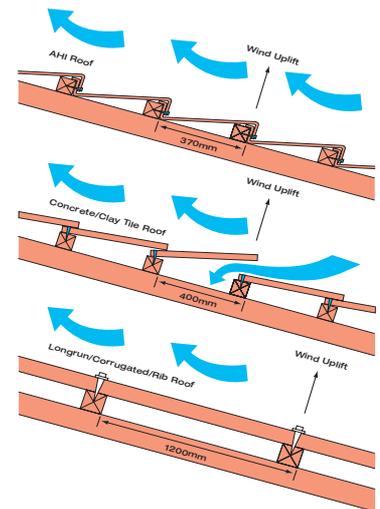
The AHI Roofing tile panels were laid in the normal manner, horizontally fastened to wooden battens which were fastened to the plywood under-deck.

The air stream was provided by the propeller of a 100 kW aircraft engine wind generator.

Water spray was added to the air stream upwind of the eave at a rate equal to 200 mm of rain per hour.

The roofing panels and the underdeck were checked for any uplift or leakage.

The wind speeds were increased steadily to 160 kilometres per hour. No leakage occurred even after prolonged exposure. The roof remained firm and no uplift was observed.



Horizontal fastening ensures roof remains firm with no wind uplift.

THE HEAVY RAIN TEST

- **The low speed dynamic rain penetration test** by the Commonwealth Scientific and Industrial Research Organisation's experimental building station.

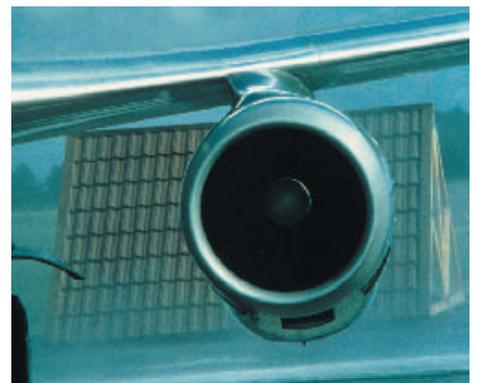
The Australian CSIRO's experimental building station has an apparatus for low-speed dynamic rain penetrating tests. A 1200 mm-diameter 8-blade fan is driven by an 18.65 kW electric motor. The windstream from this fan is discharged into the test chamber via a 2130 mm square duct. Water

is introduced into the windstream and can be directed horizontally, vertically or any direction in between. Under all angles, and with a water application of 50 millimetres per second per square metre of roof area (equivalent to 180 mm of rain per hour), no leakage was observed.

FURTHER TESTING

- **The cyclone loading test** to the Wind Loading Code, Australian Standard 1170, part 2, 1975, by Cyclone Testing Station, Australia.
- **The high speed dynamic rain penetration and high wind loading test** by Construction Research Laboratory, Inc., Miami, Florida, USA.

Copies of the complete test reports and appraisals are available from your AHI Roofing distributor.



AHI roofs withstand the toughest wind testing.

EXTREME WIND RESISTANCE TESTING ON VARIOUS ROOFS.



Concrete/Clay Tile



Asphalt Shingle



AHI Roof

AHI ROOFING SYSTEMS. THE SIMPLE SOLUTION.

AHI Roofing is the world leader in the development, manufacture and marketing of stone-coated steel roofing materials which provide safety, security and peace of mind in the most extreme environments and weather conditions.

Enduring roof systems. Crafted in nature's image. Manufactured to the highest international standards. AHI Roofing is registered to ISO 9001 which

recognises the quality management systems standards now accepted in more than one hundred and fifty countries. This certification recognises the commitment of AHI Roofing to quality, productivity, cost competitiveness and customer satisfaction. Tested and proven.

AHI Roofing systems have been tested and proven under a wide range of extreme natural conditions.



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