

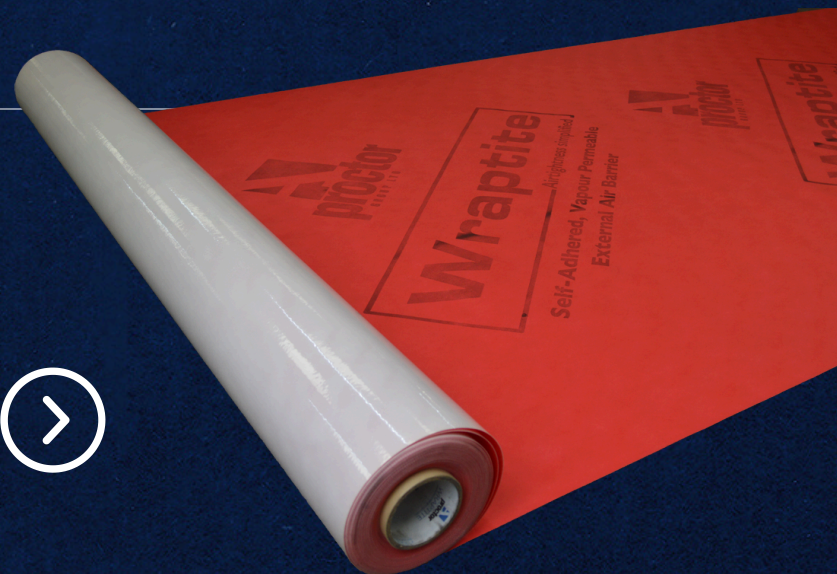
WRAPTITE® TESTED TO HURRICANE FORCES

IN PARTNERSHIP WITH ROCKWOOL



As extreme weather events become more frequent, the resilience of building envelopes is more critical than ever. That's why we were pleased to support ROCKWOOL by supplying our Wraptite self-adhesive breather membrane for a recent series of large-scale wind load tests—simulating the impact of Category 4–5 hurricanes.

SWIPE TO SEE MORE



TEST OVERVIEW

CONDUCTED BY ROCKWOOL AT LUCIDEON LIMITED, STOKE ON TRENT

Wind speeds for serviceability and fatigue assessments require a sequence of wind load cycles which are carried out over a number of days.

2,400 kPa is tested by carrying out a total 1,280 cycles at different percentages of the total wind load pressure (as table below) to simulate 10 years, in order to simulate 50 years of fatigue the 1,280 cycles must be completed 5 times to achieve a positive test result, any failures in any of the 6,400 cycles is an overall **FAIL** of the product and test.

Number of cycles	Percentage of Design Pressure (%)	Pressure (Pa)
1	90	2160
960	40	960
60	60	1440
240	50	1200
5	80	1920
14	70	1680

Wind Speed (Cat 4)	
62.25 m/s	224km/h
139 MPH	121 knots

TEST
CONTINUED



TEST OVERVIEW

4,000 kPa is tested by carrying out a total 1,280 cycles at different percentages of the total wind load pressure – due to the wind load factor each of these cycles is carried out at greater pressure (as table below) to simulate 10 years, so to simulate 50 years of fatigue the 1,280 cycles must be completed 5 times to achieve a positive test result, any failures in any of the 6,400 cycles is an overall FAIL of the product and test.

Number of cycles	Percentage of Design Pressure (%)	Pressure (Pa)
1	90	3600
960	40	1600
60	60	2400
240	50	2000
5	80	3200
14	70	2800

Wind Speed (Cat 5)	
80.74 m/s	290 km/h
180 MPH	156 knots

**Peak pressures reached 2,400–4,000 kPa
(~139–180 mph winds)**

WRAPTITE[®] PERFORMANCE

- ✦ Maintained adhesion to the substrate under extreme dynamic pressures.
- ✦ Played a key role in keeping the airtight layer intact throughout testing.
- ✦ Helped prevent insulation from detaching or losing performance.

WRAPTITE IS AN EXTERNAL AIRTIGHT SOLUTION

REAL-WORLD RELEVANCE

These tests used a typical UK façade build-up—steel framing, external insulation, and an external breather membrane—replicating real-world performance demands.

We're proud to see Wraptite performing under such punishing conditions, helping demonstrate how complete façade systems can withstand climate-driven extremes.

Big thanks to the ROCKWOOL team for leading this important research.

Interested in improving airtightness and weather resistance in your next project? Get in touch with our team at The A. Proctor Group.

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