

GA Posi-Grip Instant Access Fixing System: *Independent Test Results*



Test Methods

Wind load tests were carried out on Posi-grip perforated panels. The items tested consisted of a 900mm square perforated aluminium panel and the GA Posi-Grip Instant Access fixing system.

The panel under test was fixed to a timber frame on all four edges by means of the GA Posi-Grip Instant Access fixing system. An air bag, connected to pressure control system via a manifold, was placed between the panel and reaction frame for the positive wind load, and between the rear of the panel and reaction frame for the negative wind load. Horizontal deflection at the centre of the panel was recorded by means of a cable transducer connected to a datalogger. Pressure was monitored by means of a digital manometer connected to the air inlet manifold.

Pressure was increased steadily in increments, with the deflection readings recorded at each increment, until failure occurred. The failure mode for the positive wind load tests was by detachment of the infill panel from the frame. The failure mode for the negative wind load tests was by detachment of the pins from the plastic grommets. Loading increments and results are detailed in Tables 1 and 2.

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**Table 1: Positive Wind Load -
Posi-Grip Instant Access System**

Load (kPa)	Deflection (mm)
0.00	0.00
1.01	15.30
2.00	23.17
3.01	29.07
4.00	34.05
5.01	38.23
5.94	41.20
6.94	44.48
8.05	48.21
9.05	51.60
10.03	54.65
11.00	57.59
12.08	60.81
12.99	63.67
14.00	67.09
15.00	70.51
Failure Load (kPa)	15.00

**Table 2: Negative Wind Load -
Posi-Grip Instant Access System**

Load (kPa)	Deflection (mm)
0.00	0.00
0.10	5.32
0.22	8.40
0.33	11.93
0.41	13.84
0.51	15.64
0.61	17.14
0.72	18.49
0.81	19.59
0.91	20.72
1.01	22.00
1.11	22.91
1.22	23.79
1.30	24.51
1.42	26.46
Failure Load (kPa)	1.48

Note: a pressure of 15.00kPa equates to a windspeed of 156ms⁻¹ (350mph).

Note: a pressure of 1.48kPa equates to a windspeed of 49ms⁻¹ (110mph).

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