

Test Data Report (extracts, c/w amendments) GA Shuffle-Less Glazing Channel

INTRODUCTION

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Gooding Aluminium Ltd supply Shuffle-Less glazing channels.

As part of the product development and validation process Gooding Aluminium Ltd required a programme of testing to establish the mode of failure of the Shuffle-Less glazing channels when installed with a glass infill.

TEST PREPARATION - Soft Body Impact

Representatives of Gooding Aluminium Ltd installed 2 x 1000 mm lengths of the Shuffle-Less glazing channels into a 3200 mm x 2600 mm ETAG frame at Lucideon's laboratory using 3 No. 38 mm wood screws per channel.

The top and bottom of the ETAG frame was lined with a 1500 mm x 100 mm x 50 mm length of timber which was secured to the ETAG frame by way of 5 No. EJOT 100 mm self-drilling screws.

The single piece channel SA1031 was used at the head and the two-part channel SA1035 was used at the base of the test panel.

A 2500 mm x 1000 mm x 12 mm pane of toughened glass was installed within the channels and a clear beading (wedge) was installed to hold the glass in place.

METHOD OF TEST - Soft Body Impact

The ETAG frame containing the Shuffle-Less glazing channels and the 12 mm toughened glass panel was braced such that all of the impact would be transferred into the sample. A 50 Kg spherical bag was held on a 2500 mm steel cable such that at rest the bag touches the face of the glass panel at its geometric centre. The bag was withdrawn to differing drop heights as outlined in the results section and allowed to impact the glass panel freely until such a time as failure occurred.

| Test Number | Drop Height (mm) | Impact Energy (Joules) | Impact Energy (kgf) | Failure Mode |
|----------------|---------------------|---------------------------|------------------------|-----------------|
| 1 | 1000 | 500 | 50.98 | N/A |
| 2 | 1250 | 625 | 63.73 | N/A |
| 3 | 1500 | 750 | 76.48 | Glass Shattered |

TEST RESULTS - Soft Body Impact

The above data extracts are taken from Test Report No. 181406 issued by Lucideon Limited.

N.B. On completion of Test 3, the Shuffle-Less glazing channel and clear beading (wedge) were still securely in position, unaffected by the impact energy of the weighted bag. Please see page 2 for visual evidence.

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Photograph of GA's Shuffle-Less glazing channel and clear beading (wedge) still securely in position, unaffected by the impact energy of the weighted bag in Lucideon Test No. 181406 (QT-49734/1/GMB)/Ref. 1/Supp1



N.B. The above image was taken at the test site by a GA representative and has been added to this document for clarification (it was not included in the original test report).

A video of the test is available to view on the relevant product page @ www.goodingalum.com

End.

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