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File Ref: INZ 67175
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TEST REPORT No.: INZ67175-01

Client: Fastmount Limited
Order No.: TBD
Sample Description: Stratlock™ SL Range
Identification: As listed below
Material Specification: Acetal copolymer
Tested in accordance with: Client instruction

Test: SGS NZ was engaged by the client to carry out a repetitive pull-out load test (Fig. 2) and a shear test (Fig. 3) on the Fastmount Stratlock™ SL Range plastic mounting system.

Method: Repetitive pull-out test

The plastic clip set was subjected to cyclic pull-out loading at a rate of 100mm/min with a frequency of approximately 1 cycle per 15s. The initial pull-out force was measured and recorded and then again after 500 cycles. Pull-out behaviour over 500 cycles shown in figure 5.

Shear test

A shear force was applied to the assembled plastic clip set ensuring no separation between the male and female clips through their axis while under load.

Test Conditions - 23 ± 2°C, r.h 50 ± 10%

Results:

Female / Male Clip	Pull-out Force (Kgf)		Shear Force (Kgf)	Shear Failure Location
	Initial	After 500 Cycles		
SL-F15A / SL-M15	14.6	11.3	142.3	Shear occurred in the SL-M15 / timber connection
SL-F15A / SL-M15*	14.4	12.9	56.0	SL-F15A clips pulled out of aluminium extrusion
SL-F15B / SL-M15	13.9	11.4	88.7	Initial deformation of the steel channel leading to shear of the SL-M15 / timber connection

* Tested without #10 screws installed.

Tested by: G. Schoutens

Reviewed By: Noel Woods

Authorised By: Gijs Schoutens

Date: 2-Aug-19

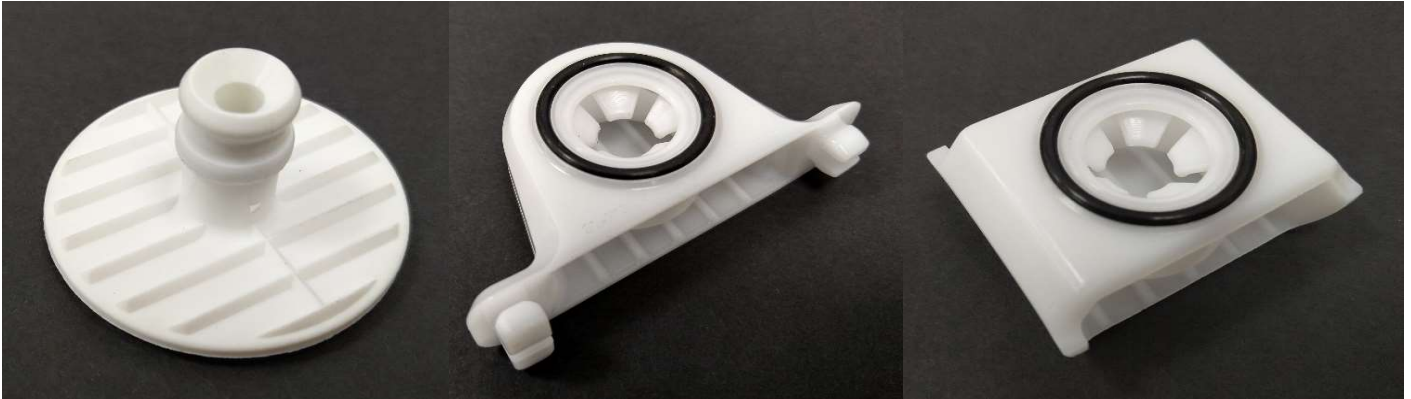
02-Aug-19

Noel Woods

02-Aug-19

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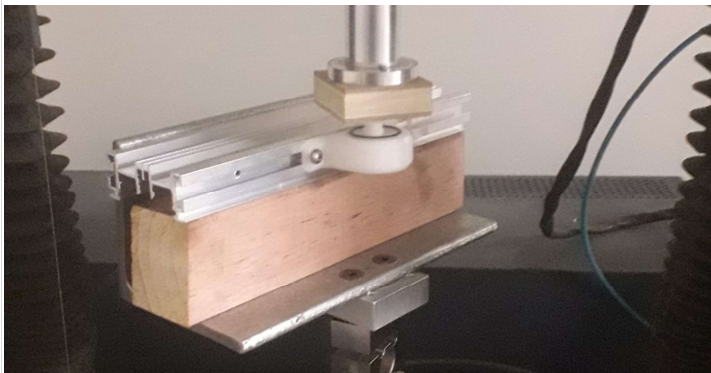


SL-M15

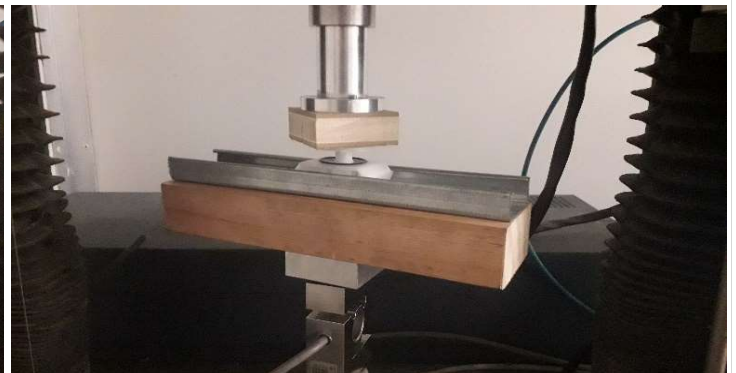
SL-F15A

SL-F15B

Figure 1 - Stratlock™ SL Range

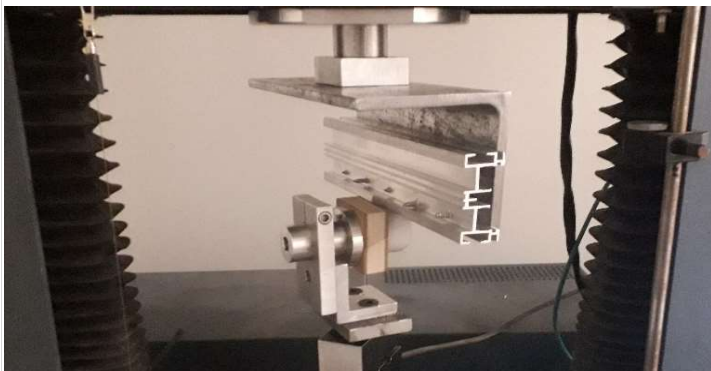


SL-F15A / SL-M15

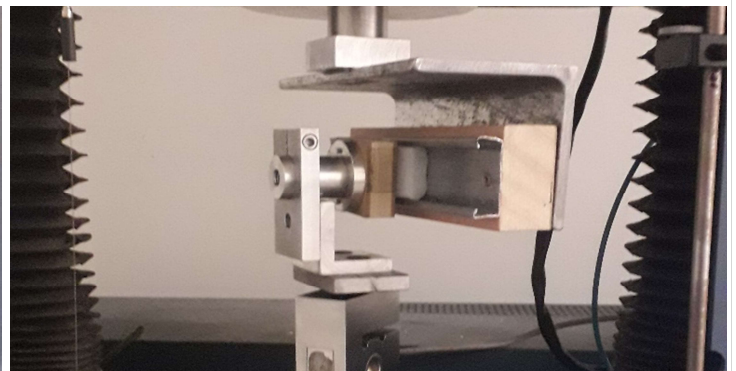


SL-F15B / SL-M15

Figure 2 - Pull-out cycling



SL-F15A / SL-M15



SL-F15B / SL-M15

Figure 3 - Shear test

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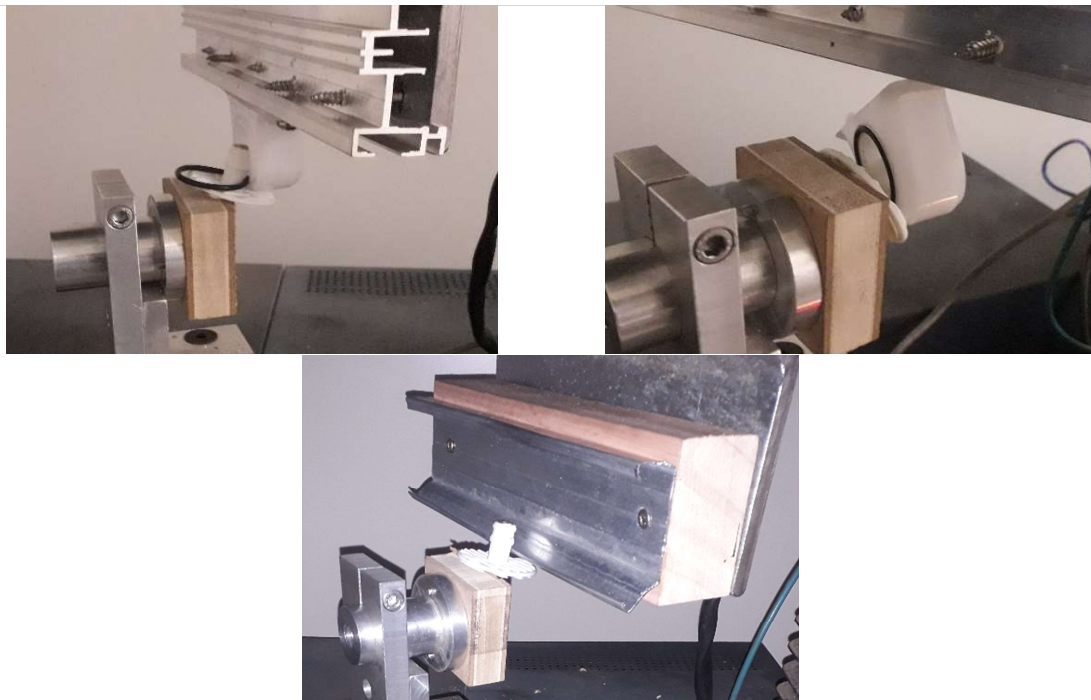


Figure 4 - Shear failures

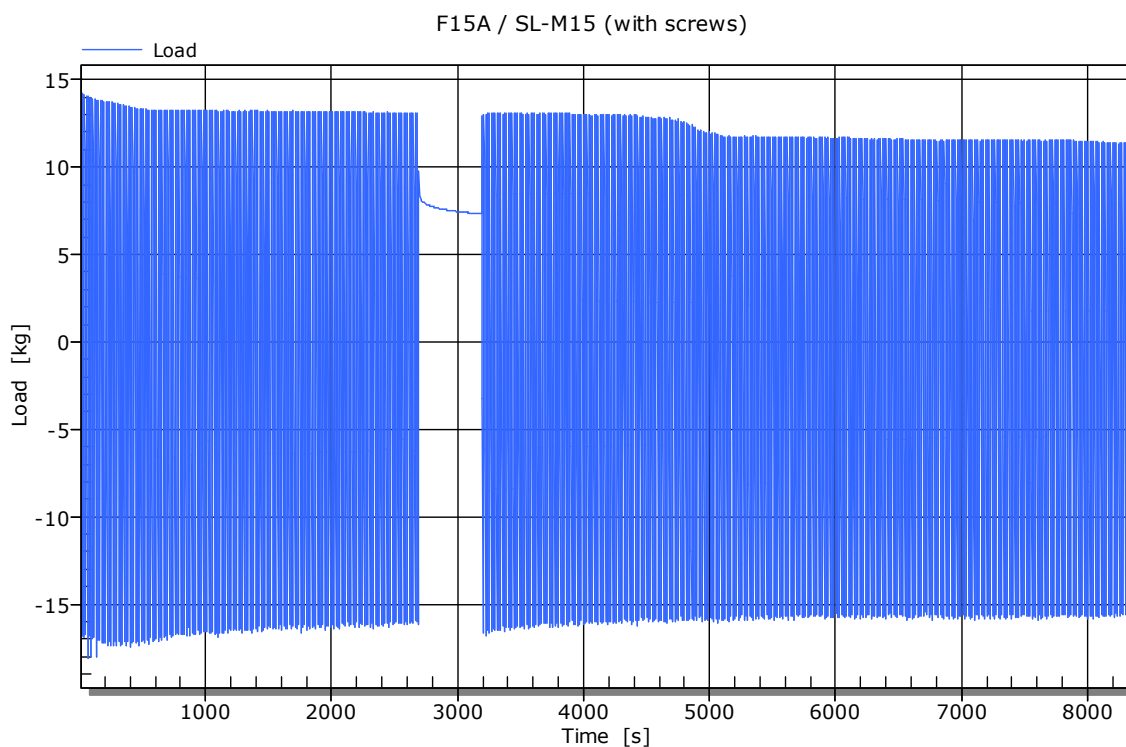


Figure 5a - Graphical representation of repetitive pull-out test data

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F15A / SL-M15 (without screws)

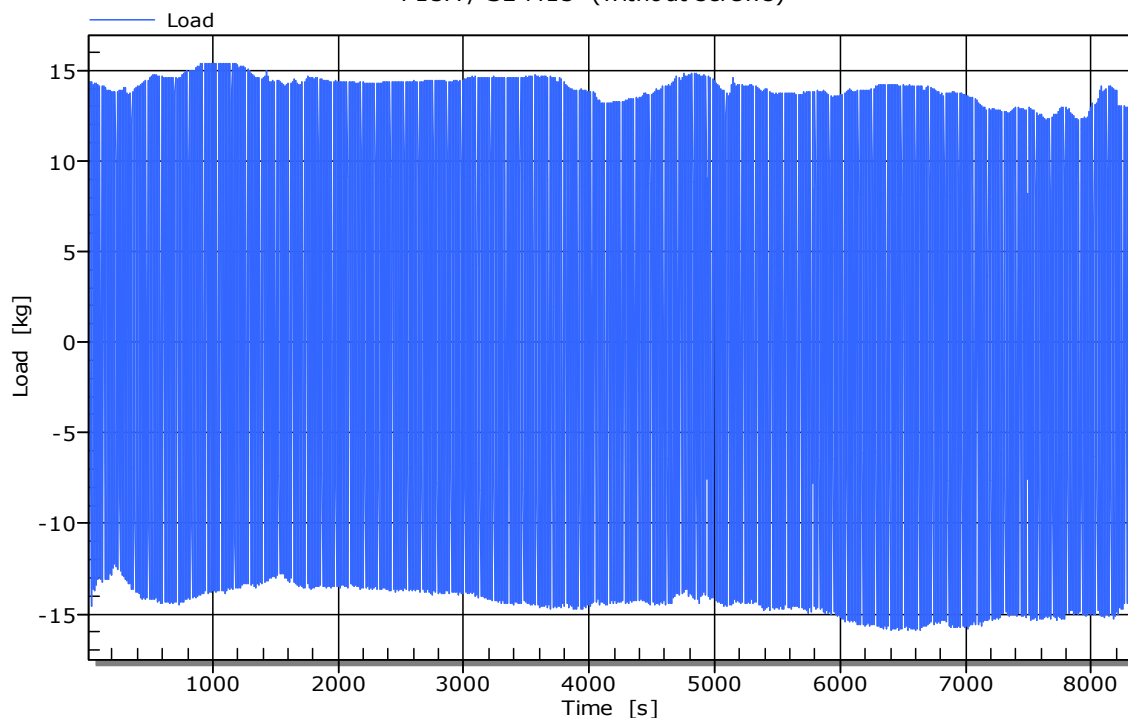


Figure 5b - Graphical representation of repetitive pull-out test data

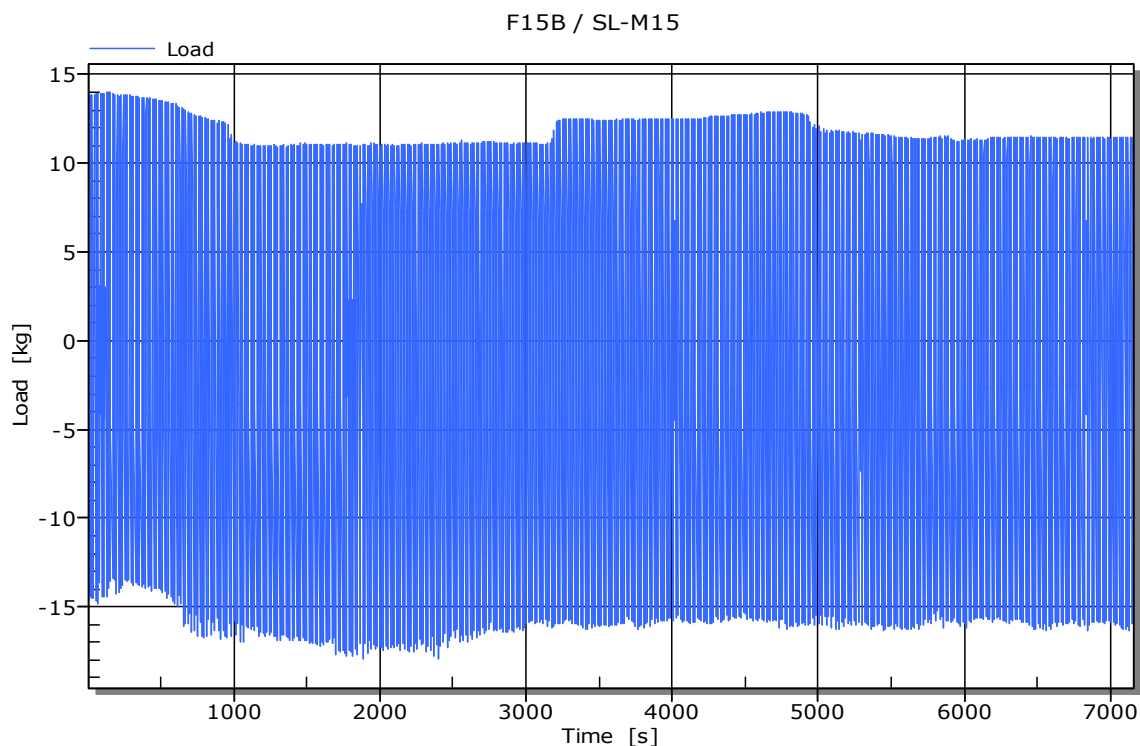


Figure 5c - Graphical representation of repetitive pull-out test data