



## TEST CERTIFICATE No.: INZ81919-01

Client: Fastmount Limited  
Order No.: 5303  
Sample Description: PC-01 Standard Profile Range  
Identification: PC-F1A / PC-M1B  
Material Specification: Acetal copolymer  
Tested in accordance with: As per method statement

**Test:** Repetitive pull-out load test and a single shear test on the Standard Profile Range plastic mounting system to determine performance and capacity of the male clips made from two types of copolymers, DURACON® and YUNCON®.

**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. Graphical representation of pull-out behaviour shown in figures 8 and 9 with the test setup shown in figure 4.

Shear test

A shear force was applied to the assembled plastic clip set at a rate of 5 mm/min until failure. Test setup shown in figure 5.

Test Conditions - 23 ± 2°C

**Results:**

Female / Male Clip	Pull-out Force (Kgf)		Shear Force (Kgf)	Comments
	Initial	After 500 Cycles		
PC-F1A / PC-1MB DURACON®	6.6	8.3	87.0	Pull-out capacity increased from 6.6 kg to 8.5 kg after 170 cycles then gradually decreased to 8.3 kg after 500 cycles. Shear failure occurred at the stem of the male clip as shown in figure 6.
PC-F1A / PC-1MB YUNCON®	6.8	7.9	93.8	Pull-out capacity increased from 6.8 kg to 8.8 kg after 90 cycles then gradually decreased to 7.9 kg after 500 cycles. Shear failure occurred at the stem of the male clip as shown in figure 7.

Tested by: G. Schoutens

Reviewed By: Alistair Remington

Authorised By: Gijs Schoutens

Date: 19-Jul-24

22-Jul-24

*Alistair Remington*

22-Jul-24

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Figure 1 - PC-F1A female clip



Figure 2 - PC-M1B male clip, DURACON®



Figure 3 - SL-M18 male clip

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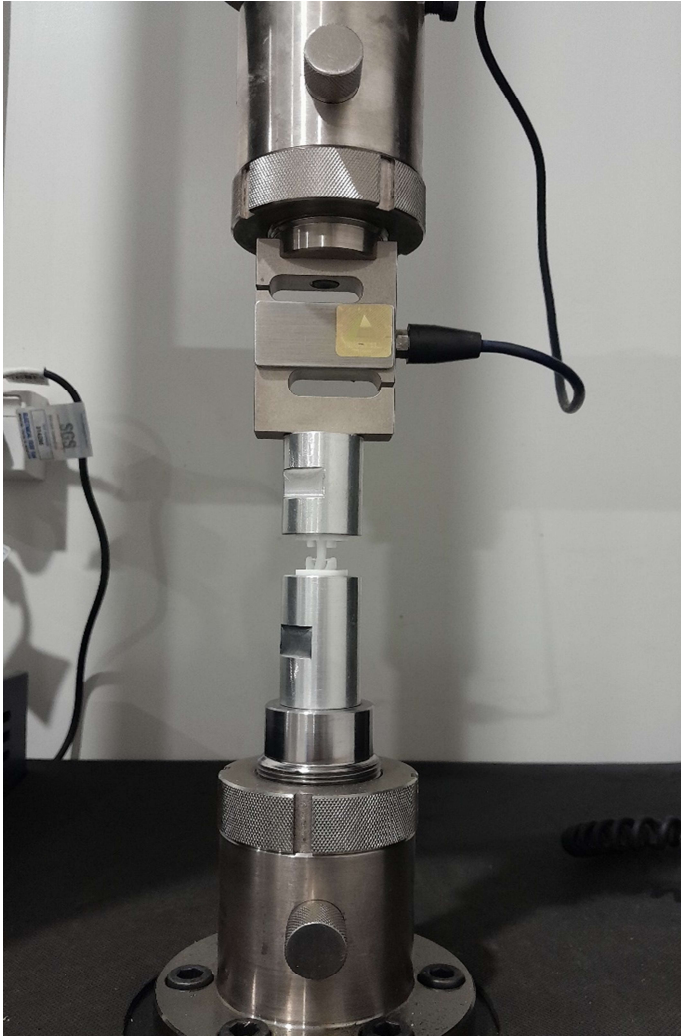


Figure 4 - Pull-out test setup

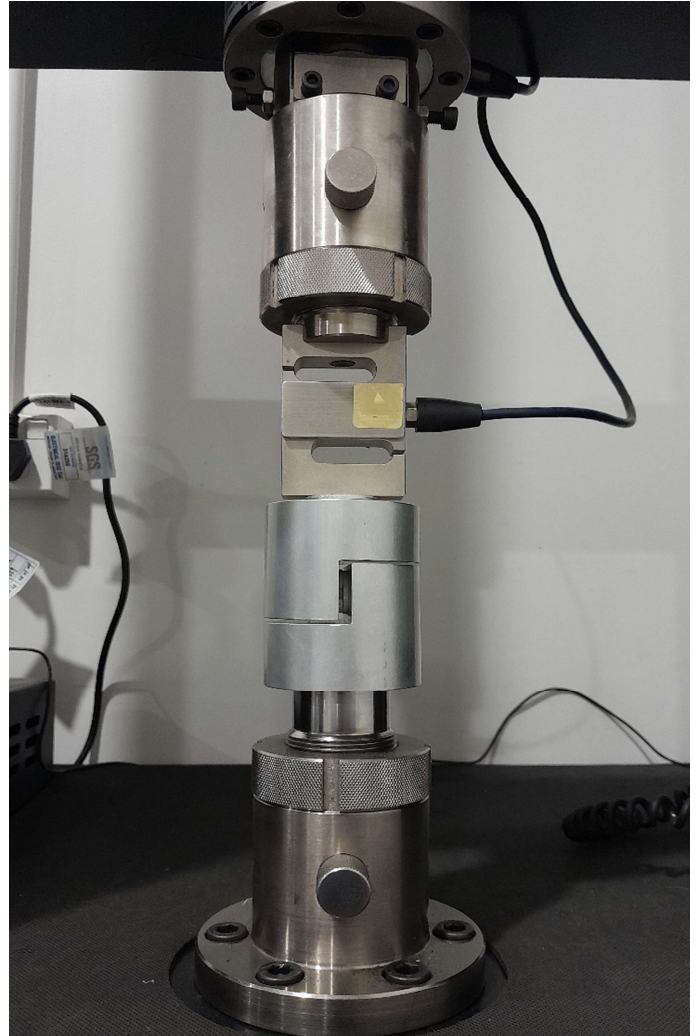


Figure 5 - Shear test setup

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**Figure 6 - Fracture of female clip housing**



**Figure 7 - Fracture of female clip housing**

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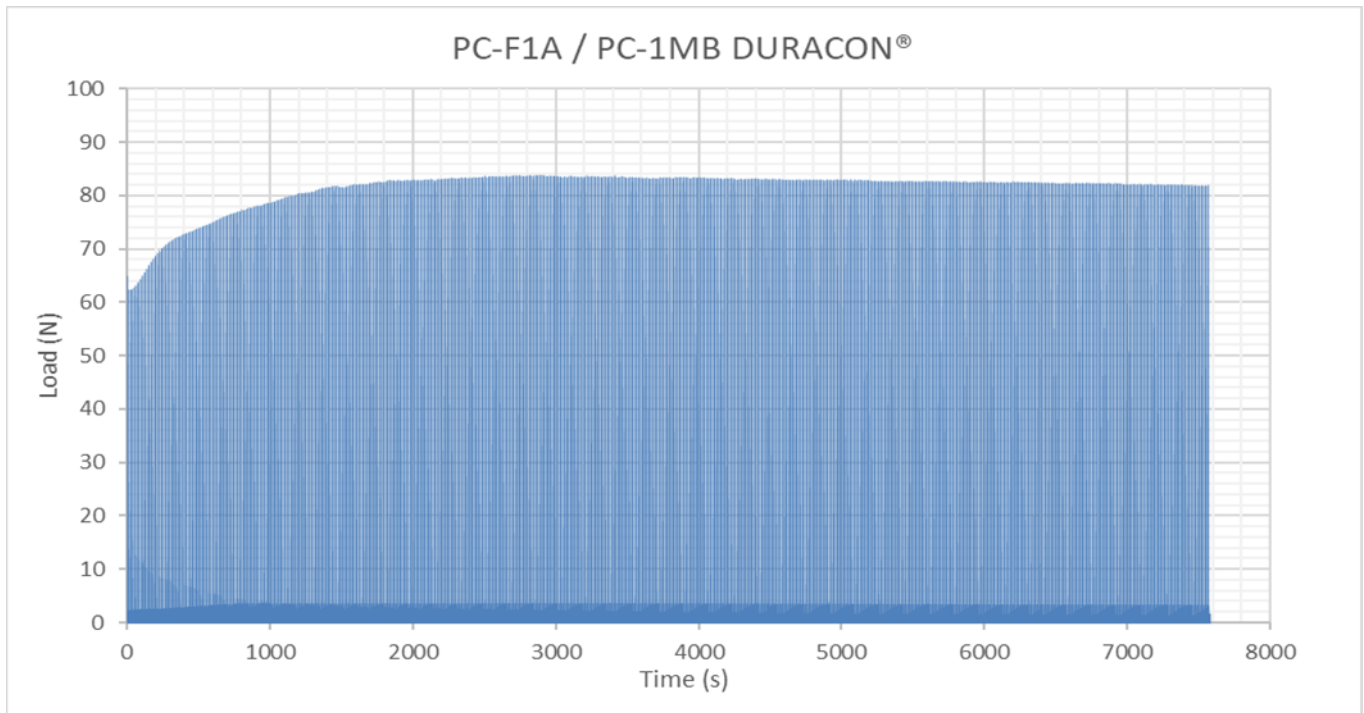


Figure 8 - Graphical representation of the SL-FA / SL-M10 clip set pull-out test

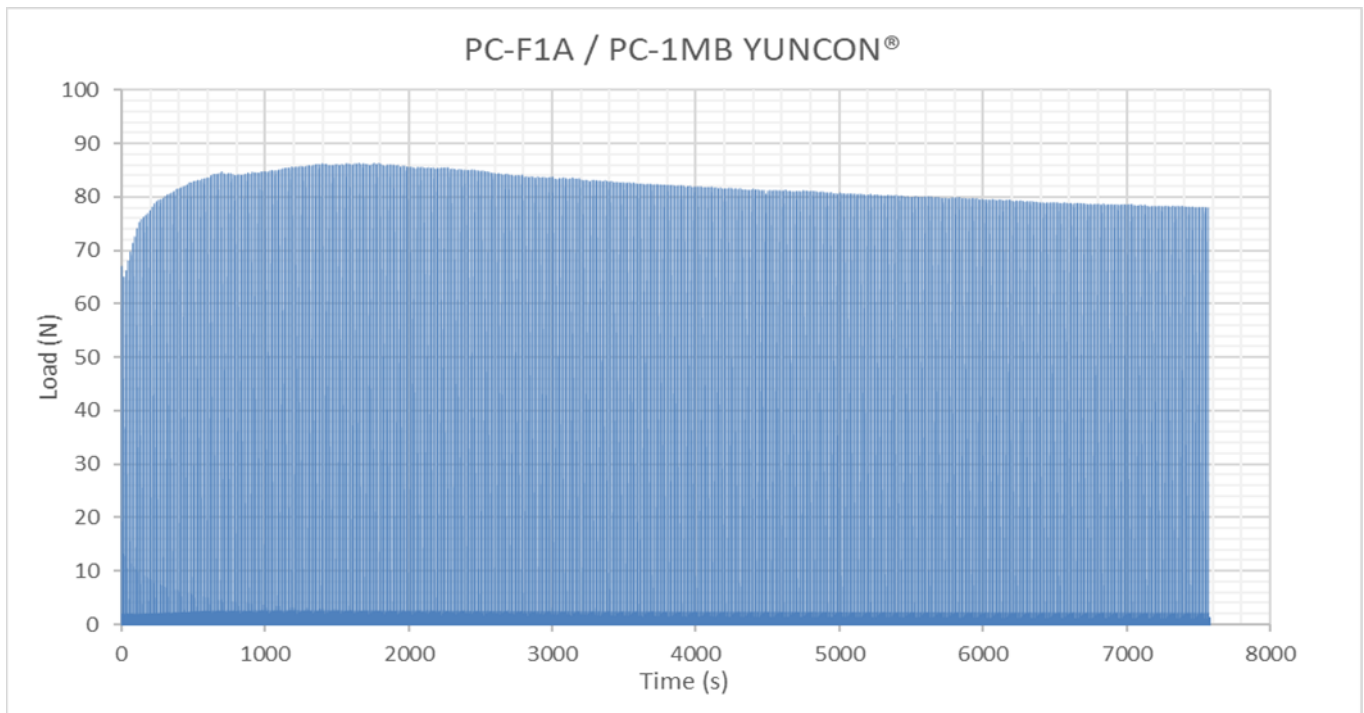


Figure 9 - Graphical representation of the SL-FA / SL-M18 clip set pull-out test

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