

# Technical Data Sheet

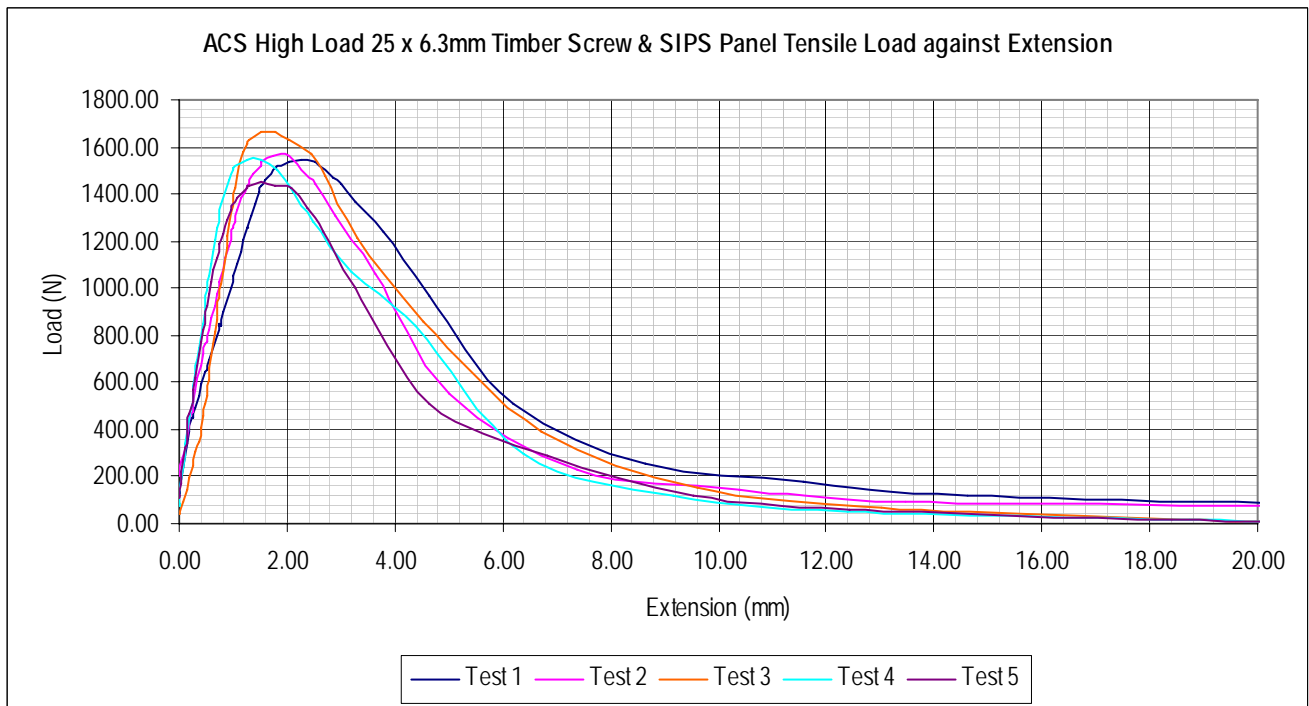
## High Load Timber Screw & SIPS Panel Tensile Test Summary

### Test Background and Procedure

ACS commissioned a series of mechanical tests on to establish the tensile capacity of the ACS 25 x 6.3mm High Load Timber Screw when used in conjunction with a 15mm Sips Panel. The tests were carried out at Sheffield Hallam University Mechanical Testing Laboratories using calibrated Servo-Hydraulic Test Equipment. The fasteners were fixed to the panel through a specially designed collar that allowed the tensile load to be applied whilst measuring and recording the load and deflection.

### Test Result

A linear tensile load was applied to the fixing via the collar until the fixing withdrew from the panel. The load and deflection were recorded throughout the test and the ultimate pull out load established for the five sample tests. The load against extension graph can be seen below illustrating the pull out and deflection for each of the five tests.



Test	Test 1	Test 2	Test 3	Test 4	Test 5	Mean Result
Tensile Pull Out Failure (kN)	1.54	1.56	1.66	1.54	1.44	1.55

### Design Capacity

ACS recommend a minimum factor of safety against failure of at least three and therefore would suggest the design capacity of this fixing for use with a 15mm SIPS panel to be 0.5kN in tension.

For further information or technical assistance please contact the ACS Technical Department on 0844 850 0860 or email [technical@acsstainless.co.uk](mailto:technical@acsstainless.co.uk)

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