



**SURE-FAST**  
INDUSTRIAL FASTENERS

# Mechanical Testing

Timber-Fast™ timber fixing SD screws were tested for determination of withdrawal properties in accordance with AS 3566.1-2002 *Self-Drilling Screws for the Building and Construction Industries – Part 1: General Requirements and Mechanical Properties*.

The test procedure included being driven into seasoned Radiata Pine 90 x 45mm thickness.



**Screw Type:** Timber-Fast™ Self Drilling (SD) 14 x 50mm long  
**Head Type:** Hexagon Head  
**Head Markings:** SX5  
**Head (Nominal):** 9.4mm Across Flats (A/F) – To suit 3/8" driverP  
**Coating Type:** Zinc

Screws were driven into a length of seasoned Radiata Pine until a penetration depth of 35mm was achieved.

Axial withdrawal force was then applied individually to the screw head at a constant rate until a reduction in withdrawal strength was recorded.

**Table 1: Withdrawal Test Data for Timber-Fast™ Screws T17 14 x 50mm long;  
Seasoned Radiata Pine**

Sample ID	Test Number	Peak Force (kN)	Mode of Failure
T17 Hex Head 14 - 10 x 50 mm	1	6.3	Withdrawal from timber substrate
	2	6.6	Withdrawal from timber substrate
	3	6.8	Withdrawal from timber substrate
	4	7.1	Withdrawal from timber substrate
	5	6.7	Withdrawal from timber substrate
	6	6.7	Withdrawal from timber substrate
	7	7.1	Withdrawal from timber substrate
	8	6.8	Withdrawal from timber substrate
	9	6.8	Withdrawal from timber substrate
	10	7.2	Withdrawal from timber substrate
<b>Statistics</b>			
Mean	6.8		
Maximum Value	7.2		
Minimum Value	6.3		
Standard Deviation	0.3		
Coefficient of Variation	0.04		
<b>AS 3566.1-Table 3.3 Withdrawal Strength Requirements</b>			
Minimum Permissible Value	3.1		
Test Comment	<b>PASS</b>		