SURE-FAST
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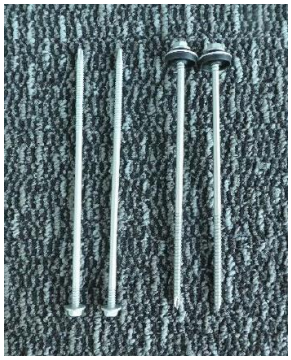
Mechanical Testing

Sure-Fast Timber Self Drilling 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 a timber substrate being seasoned Radiata Pine.



Screw Type 1: Timber Self Drilling (SD) – Type 17 14-10 x 200mm long
Head Type: Hexagon Head
Head Markings: SX4
Head (Nominal): 9.4mm Across Flats (A/F) – To suit 3/8” driver
Coating Type: Zinc

Self Drilling Screws were driven into 90 x 45mm seasoned Radiata Pine with nominal embedment depth of 35mm.

For all testing into timber substrates, screws were driven into the 90mm wide face of the timber substrate. Axial withdrawal force was then applied individually to the screw head at a constant rate until the screws achieved the peak tensile force and were observed to withdraw from the substrate.

Table 1: Withdrawal Test Data for T17 Self Drilling Screws 14-10 x 200mm long; Timber Substrate

Screw & Substrate Type	Specimen No.	Peak Test Force (kN)	AS 3566.1 Min. Force (kN)	Test Observations/Comments
(ST 6.3) T17 14-10 x 200 mm long; MGP10 Substrate 35 mm Penetration Depth	1	7.09	3.10	Withdrawal from the timber substrate, no signs of damage to the screw threads - PASS
	2	7.53		"
	3	6.25		"
	4	7.76		"
	5	6.34		"
	6	7.04		"
	7	6.90		"
	8	7.28		"
	9	7.95		"
	10	7.22		"
Mean		**7.14**		
Minimum		**6.25**		
Maximum		**7.95**		