

## Alternative Fasteners for Batten Fastening for Australian Wind Classes

Gerard recommends the use of 90x3.15mm nails or 80mm 10G screws for fastening battens to rafters, depending on the applicable wind class.

Where these are not available, alternative fasteners may be used provided the pull out strength exceeds the requirements of the wind class.

The pull out strength figures below are based on testing conducted on 90x45mm MSG8 pine rafters and 50x40mm cut-of-log pine battens.

## Fastener Strength Requirements

		Fastener kN required (ea)			
		370mm Batten Spacing		295mm Batten Spacing	
Wind Class	kPa	Double Fastening	Single Fastening	Double Fastening	Single Fastening
<b>N1</b>	1.25	0.31	0.63	0.21	0.42
<b>N2</b>	1.73	0.43	0.87	0.29	0.58
<b>N3</b>	2.70	0.68	1.35	0.45	0.90
<b>N4</b>	4.02	1.01	2.01	0.67	1.34
<b>N5</b>	5.91	1.48	2.96	0.99	1.97
<b>N6</b>	7.99	2.00	4.00	1.33	2.66

## Fastener Pull Out Strength

75x3.05mm Ring Shank Nail (55mm groove)	90x3.15mm Smooth Shank Nail	82x3.15mm Ring Shank Nail (40mm groove)	10G CSK 80mm Zinc Screw	14G 90mm T17 Bugle Head Screw
1.50kN	1.79kN	1.96kN	4.12kN	6.77kN

When using the tables above, verify the fastener pullout strength exceeds the kN requirement for the batten spacing and whether the batten is single fastened or double fastened at each batten-rafter junction.