

SmartLVL 12 Sheet roof battens

Description

SmartLVL 12 roof batten is a structural laminated veneer lumber (LVL) manufactured for Tilling Timber to meet the quality controlled process requirements of AS/NZS 4357 - Structural Laminated Veneer Lumber.



Quality

Compliance with process based quality control requirements is third party audited by SAI-Global, and the audits, together with end product testing is used as the basis for Product Certification by SAI-Global as a JAS-ANZ accredited Product Certification body.

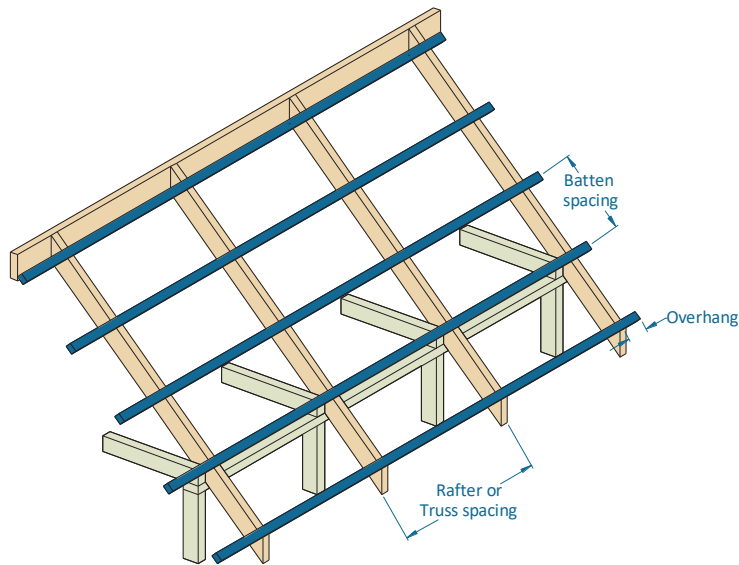
JAS-ANZ stands for the government established “Joint Accreditation System of Australia and New Zealand” which exists as the peak organisation for accreditation of Product Certification bodies.



Features:

- Manufactured in lengths of 5.4 and 6.3 metres to match rafter/truss spacing
- Glue line treated to AS 1604.4 against insect attack for all areas South of the Tropic of Capricorn
- Manufactured from wood fibre from FSC Certified Forests
- Supported by SmartFrame software
- Engineered straightness and performance

Sheet Roof - AS 4055 Wind Classification N1 - N4



Batten spacing (mm)			600		900		1200	
SmartLVL 12 size D x B (mm)	AS 4055 Wind class	Maximum roof mass (kg/m ²)	Span	O/H	Span	O/H	Span	O/H
			Maximum recommended continuous span (mm)					
35 x 65	N1 - N4	10	1200	450	1200	400	900	350

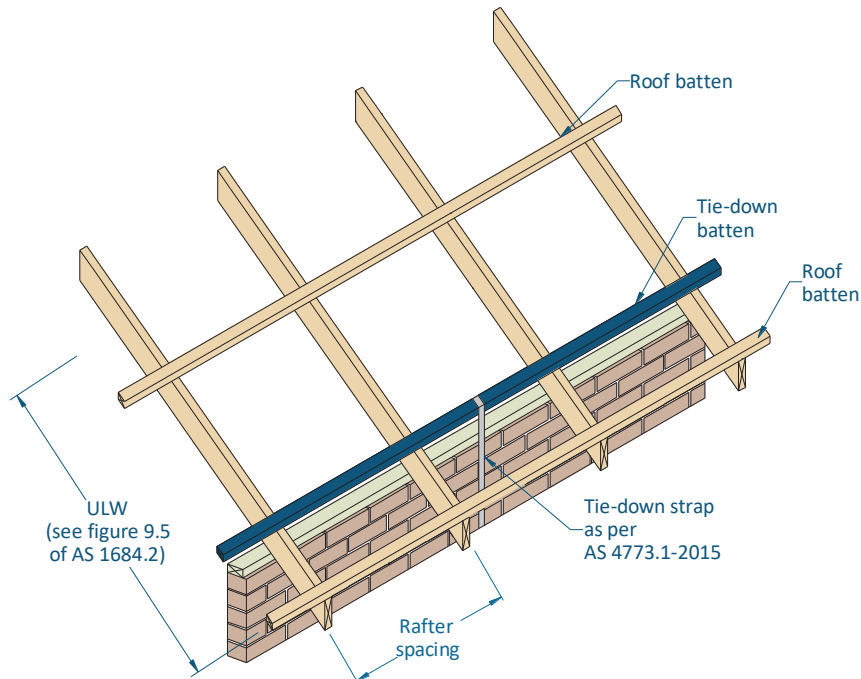
Notes to Table:

1. D = member depth, B = member breadth, NS = not suitable, O/H = overhang
2. Minimum end bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous spans
3. Minimum backspan = 200% of overhang, Maximum overhang = 50% of backspan
4. During construction, roof battens should only be walked upon at support points
5. Batten fixing shall comply with the requirements required in AS 1684.2
6. Edge connections are defined as those connections on the two (2) battens closest to the ridge, eaves line and the two (2) batten to rafter connections adjacent to the hip rafters. All other batten connections are deemed to be general connections.

Tie-down battens

Tie-down battens are defined as battens placed vertically above the top of the external cavity wall to provide resistance against uplift of the roof via tie-down straps installed in accordance with Table 6.1(B) of AS 4773.1:2015.

The table below gives the maximum Uplift Load Width (ULW) for two (2) tie down spacing's. For information how to apply this ULW for different roof configurations, refer to Clause 9.6 and Figure 9.5 of AS 1684.2 - 2010



Rafter spacing (mm)			600		900		1200	
Tie-down spacing (mm)			900	1200	900	1200	900	1200
SmartLVL 12 size D x B (mm)	AS 4055 Wind class	roof mass (kg/m ²)	Maximum recommended (ULW) in mm					
35 x 65	N1	10	7500	7500	7500	6200	6200	4700
	N2	10	6700	5200	4600	3500	3500	2600
	N3	10	3600	2700	2400	1800	1800	1300

Notes to Table:

The design of the tie-down battens in this table does not assume lateral restraint by the sheet roofing, therefore the tie down batten may be installed independently of the normal battens required for sheet fixing.

Certification

As a professional engineer, qualified and experienced in timber engineering, I certify that the use of the SmartLVL 12 members as shown in these tables, and installed in accordance with the provisions of this Design Guide, complies to the National Construction Code (NCC). These span tables have been prepared in accordance with standard engineering principles, the relevant test reports and Australian standards, i.e.:

- AS 1684 series - Residential timber-framed construction
- AS 1720.1 Timber structures - Design methods
- AS 4055 Wind loads for houses
- AS/NZS 4357 Structural laminated veneer lumber
- AS 1720.3 Timber structures—Design criteria for timber-framed residential buildings

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