



e-beam®



e-beam®  
engineered LVL beams



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VENEER

e-beam®

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INATED

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# E-BEAM SPAN TABLES

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ENGINEERED TO LOAD  
ENGINEERED TO LENGTH  
ENGINEERED TO LAST

END OF STORY

e-beam is the premier laminated veneer lumber (LVL) product available in Australia. LVL has many advantages over traditional building products, including its uniformity of engineering properties, its high strength to weight ratio and its availability in longer lengths.

Available in a range of thicknesses including 35mm, 45mm, 63mm and 75mm with depths from 90mm to 450mm, e-beam is manufactured from sustainably sourced timbers, making it an environmentally sustainable resource.

**About e-beam**

e-beam conforms with the requirements of AS/NZS4357 - Structural laminated veneer lumber. It is manufactured by laminating sustainably sourced timber veneers, using phenolic adhesive, in a continuous assembly in which the grain direction of all veneers runs longitudinally. It is pressed as a 1.2m nominal width continuous billet in various standard thicknesses, cut to standard widths and any specified length for use as structural beams and other framing components.

**Use of e-beam Data**

The Tables and other technical data provided in this publication are only applicable to e-beam LVL manufactured by Wesbeam. This data should not be used for lookalike or substitute products. Use of the e-beam data for look-alike or substitute products can result in unsafe or unsatisfactory performance.

**Basis for Design**

The design criteria used to develop the Span Tables contained in this brochure are based on the assumptions listed in AS1720.3:2016 - Timber structures, Part 3: Design criteria for timber-framed residential buildings.

**Design Loads**

The design loads used to determine member sizes listed in the Span Tables are as per AS1720.3:2016 - Timber structures, Part 3: Design criteria for timber-framed residential buildings. The design loads include:-

- Permanent loads
- Imposed loads
- Wind loads
- Snow loads
- Earthquake loads, and
- Load Combinations of the above loads

Design load limitations for each of the above load or load combination cases are also as per AS1720.3:2016 - Timber structures, Part 3: Design criteria for timber-framed residential buildings.

**Design Capacity Factor ( $\phi$ )**

The capacity factor ( $\phi$ ) used to calculate the design capacity of a structural framing member listed in the Span Tables is taken from Table 2.5 in AS1720.1:2010 - Timber structures, Part 1: Design methods, where for all LVL structural elements used in residential houses  $\phi = 0.95$ .

**Terminology, Definitions and Notations Used in these Tables**

The terminology, definitions and notations used in this brochure are similar to and consistent with those used and listed in AS1720.3:2016 - Timber structures, Part 3: Design criteria for timber-framed residential buildings, as well as AS1684.2:2010 - Residential timber-framed construction, Part 2: Non-cyclonic areas.

**Using Multiple Sections**

The use of multiple sections where called for in the Span Tables is permitted using vertically nail laminated LVL. Multiple LVL members are to be fixed in accordance with Cl 2.3 of AS1684.2:2010 - Residential timber-framed construction, Part 2: Non-cyclonic areas.

**Characteristic Design Values**

The characteristic Design Values for Wesbeam e-beam LVL are available on request from Wesbeam's Technical Department. This service is available for professional design practitioners.

The spans listed in this brochure for e-beam LVL manufactured by Wesbeam apply only when the moisture content of the LVL is below 15% in service and are for "on edge" orientation of the LVL section.



## RAFTERS

## WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Roof Mass kg/m <sup>2</sup>	Single Span								Continuous Span							
		Maximum Rafter Spacing (mm)															
		450		600		900		1200		450		600		900		1200	
		Maximum Rafter Span and Overhang 'O/H' (m)															
		SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H
90 x 35	10	2.9	0.7	2.7	0.5	2.5	0.6	2.3	0.4	3.7	0.6	3.3	0.5	3.0	0.6	2.8	0.4
	20	2.9	0.7	2.7	0.6	2.5	0.5	2.5	0.6	3.7	0.6	3.3	0.5	3.0	0.6	2.8	0.5
	30	3.0	0.7	2.6	0.6	2.3	0.7	2.2	0.5	3.7	0.6	3.3	0.5	3.0	0.6	2.8	0.5
	40	2.6	0.8	2.5	0.6	2.2	0.7	2.1	0.5	3.5	0.7	3.4	0.5	3.0	0.6	2.6	0.5
	60	2.3	0.8	2.2	0.7	2.0	0.6	1.8	0.5	3.1	0.7	3.0	0.6	2.6	0.7	2.4	0.5
	75	2.3	0.8	2.1	0.7	1.8	0.6	1.7	0.5	2.9	0.7	2.8	0.6	2.5	0.7	2.2	0.5
90 x 45	10	2.2	0.8	2.0	0.7	1.7	0.8	1.6	0.6	2.9	0.7	2.6	0.6	2.3	0.7	2.1	0.6
	20	3.3	0.7	3.1	0.6	2.8	0.7	2.7	0.5	4.2	0.6	3.9	0.5	3.4	0.6	3.2	0.5
	30	3.3	0.8	3.1	0.6	2.8	0.7	2.7	0.5	4.2	0.6	3.9	0.5	3.4	0.6	3.2	0.5
	40	3.2	0.8	3.0	0.6	2.6	0.7	2.4	0.5	4.3	0.7	3.8	0.5	3.5	0.6	3.2	0.5
	60	3.0	0.8	2.7	0.7	2.4	0.7	2.2	0.6	3.8	0.7	3.5	0.6	3.2	0.7	2.8	0.5
	75	2.6	0.9	2.4	0.7	2.1	0.8	1.9	0.6	3.5	0.8	3.2	0.6	2.8	0.7	2.6	0.6
130 x 35	10	2.3	0.9	2.1	0.8	1.9	0.7	1.7	0.6	3.1	0.8	2.8	0.7	2.5	0.6	2.3	0.7
	20	5.3	0.9	4.8	0.7	4.2	0.8	3.8	0.6	6.7	0.8	5.9	0.6	4.9	0.8	4.3	0.6
	30	4.5	1.0	4.2	0.8	3.8	0.7	3.5	0.6	6.1	0.8	5.6	0.6	5.0	0.8	4.4	0.6
	40	4.1	1.0	3.8	0.8	3.3	0.7	3.1	0.6	5.4	0.9	5.0	0.7	4.5	0.6	4.1	0.8
	60	3.8	1.0	3.5	0.8	3.1	0.9	2.8	0.6	5.0	0.9	4.6	0.7	4.1	0.8	3.7	0.6
	75	3.3	1.1	3.1	0.9	2.7	0.8	2.5	0.7	4.5	1.0	4.1	0.8	3.6	0.7	3.3	0.9
130 x 45	10	3.1	1.1	2.9	0.9	2.5	0.8	2.3	0.7	4.2	1.0	3.8	0.8	3.4	0.9	3.1	0.7
	20	2.9	1.2	2.7	1.0	2.4	0.9	2.2	0.7	3.9	1.0	3.6	0.8	3.2	0.9	2.9	0.7
	30	5.5	1.0	5.2	0.8	4.5	0.7	4.1	0.9	7.1	0.8	6.5	0.6	5.7	0.8	4.9	0.7
	40	4.8	1.0	4.4	0.8	4.0	0.9	3.7	0.7	6.4	0.9	6.0	0.7	5.4	0.8	4.9	0.7
	60	4.3	1.1	4.0	0.9	3.6	0.8	3.3	0.7	5.8	0.9	5.4	0.7	4.8	0.9	4.4	0.7
	75	4.0	1.1	3.7	0.9	3.3	1.0	3.0	0.7	5.4	1.0	4.9	0.8	4.4	0.9	4.0	0.7
150 x 35	10	3.6	1.2	3.3	1.0	2.9	0.9	2.6	0.8	4.8	1.0	4.4	0.8	3.9	0.9	3.5	0.8
	20	3.3	1.2	3.1	1.0	2.7	1.1	2.5	0.8	4.5	1.1	4.1	0.9	3.6	0.8	3.3	1.0
	30	3.2	1.2	2.9	1.0	2.5	1.1	2.3	0.8	4.2	1.1	3.9	0.9	3.4	1.0	3.1	0.8
	40	6.0	0.8	5.5	1.0	4.8	0.8	4.4	0.7	7.4	0.9	6.5	0.7	5.5	0.9	4.9	0.7
	60	5.1	1.1	4.8	0.9	4.3	0.8	4.0	0.7	6.7	0.9	6.3	0.7	5.7	0.9	5.0	0.7
	75	4.6	1.2	4.3	0.9	3.8	0.8	3.5	0.7	6.2	1.0	5.8	0.8	5.1	0.7	4.7	0.9
150 x 45	10	4.3	1.2	4.0	1.0	3.5	0.9	3.2	0.7	5.8	1.0	5.3	0.8	4.7	1.0	4.3	0.7
	20	3.8	1.3	3.5	1.0	3.1	0.9	2.8	0.8	5.1	1.1	4.7	0.9	4.2	0.8	3.8	1.0
	30	3.6	1.3	3.3	1.1	2.9	1.0	2.6	0.8	4.8	1.1	4.4	0.9	3.9	1.0	3.5	0.8
	40	3.4	1.3	3.1	1.1	2.7	1.0	2.5	0.8	4.5	1.2	4.2	0.9	3.7	1.1	3.3	0.8
	60	6.2	1.1	5.9	0.9	5.2	1.0	4.7	0.8	7.7	1.0	7.5	0.7	6.5	0.9	5.6	0.8
	75	5.4	1.2	5.1	1.0	4.6	0.9	4.2	0.8	7.0	1.0	6.6	0.8	6.1	0.9	5.7	0.7
170 x 35	10	4.9	1.3	4.6	1.0	4.1	1.1	3.8	0.8	6.5	1.1	6.1	0.9	5.5	0.8	5.0	1.0
	20	4.6	1.3	4.2	1.1	3.8	1.0	3.4	0.8	6.1	1.1	5.7	0.9	5.0	1.0	4.6	0.8
	30	4.1	1.4	3.8	1.1	3.3	1.0	3.0	0.9	5.5	1.2	5.0	1.0	4.4	0.9	4.1	1.1
	40	3.8	1.4	3.5	1.2	3.1	1.1	2.8	0.9	5.1	1.2	4.7	1.0	4.2	1.1	3.8	0.9
	60	3.6	1.4	3.3	1.2	2.9	1.1	2.7	1.0	4.9	1.3	4.4	1.0	3.9	1.2	3.6	1.0
	75	3.4	1.3	3.1	1.1	2.7	1.0	2.5	0.8	4.5	1.2	4.2	0.9	3.7	1.1	3.3	0.8
170 x 45	10	6.5	1.2	6.2	0.9	5.5	1.1	5.0	0.8	NS	NS	7.2	0.8	6.0	1.0	5.3	0.8
	20	5.8	1.2	5.4	1.0	4.8	0.9	4.5	0.8	7.3	1.1	6.9	0.8	6.4	1.0	5.5	0.8
	30	5.2	1.3	4.8	1.1	4.3	0.9	4.0	0.8	6.7	0.9	6.4	1.1	5.8	0.8	5.3	1.0
	40	4.8	1.4	4.5	1.1	4.0	1.0	3.6	0.8	6.7	1.2	6.0	0.9	5.3	1.1	4.9	0.8
	60	4.3	1.4	4.0	1.2	3.5	1.0	3.2	0.9	5.8	1.0	5.3	1.2	4.7	1.0	4.3	0.9
	75	4.0	1.5	3.7	1.2	3.3	1.1	3.0	0.9	5.4	1.3	5.0	1.0	4.4	1.2	4.0	0.9
170 x 45	10	3.8	1.5	3.5	1.3	3.1	1.1	2.8	0.9	5.1	1.3	4.7	1.1	4.1	1.0	3.8	0.9
	20	6.7	1.3	6.5	1.0	5.9	1.2	5.4	0.9	NS	NS	NS	NS	7.1	1.1	6.3	0.9
	30	6.1	1.4	5.7	1.1	5.1	1.0	4.7	0.9	7.6	1.2	7.2	0.9	6.7	1.1	6.3	0.8
	40	5.5	1.4	5.1	1.2	4.6	1.1	4.2	0.9	7.1	1.2	6.7	1.0	6.2	0.9	5.7	1.1
	60	5.1	1.5	4.7	1.2	4.2	1.1	3.9	0.9	6.7	1.3	6.3	1.0	5.7	1.2	5.2	0.9
	75	4.6	1.5	4.2	1.3	3.7	1.2	3.4	1.0	6.2	1.3	5.7	1.1	5.0	1.2	4.6	1.0
90	4.3	1.6	4.0	1.3	3.5	1.2	3.2	1.0	5.8	1.4	5.3	1.1	4.7	1.3	4.3	1.0	
90	4.1	1.6	3.7	1.4	3.3	1.3	3.0	1.1	5.5	1.4	5.0	1.2	4.4	1.1	4.0	1.3	

## RAFTERS CONTINUED

## WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Roof Mass kg/m <sup>2</sup>	Single Span								Continuous Span							
		Maximum Rafter Spacing (mm)															
		450		600		900		1200		450		600		900		1200	
		Maximum Rafter Span and Overhang 'O/H' (m)															
		SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H	SPAN	O/H
200 x 35	10	7.2	1.4	7.0	1.1	6.4	1.0	5.7	0.9	NS	NS	7.8	1.0	6.6	1.2	6.0	0.9
	20	6.5	1.5	6.2	1.2	5.6	1.1	5.2	0.9	NS	NS	7.7	1.0	6.8	1.2	6.1	0.9
	30	6.1	1.5	5.6	1.3	5.0	1.1	4.6	0.9	7.6	1.3	7.2	1.0	6.6	1.2	6.2	0.9
	40	5.6	1.6	5.2	1.3	4.6	1.1	4.3	0.9	7.2	1.4	6.8	1.1	6.2	1.0	5.7	0.9
	60	5.0	1.7	4.6	1.4	4.1	1.2	3.8	1.0	6.6	1.5	6.2	1.2	5.5	1.1	5.0	1.0
	75	4.7	1.7	4.3	1.4	3.8	1.2	3.5	1.0	6.3	1.5	5.8	1.2	5.1	1.4	4.7	1.0
	90	4.5	1.8	4.1	1.5	3.6	1.3	3.3	1.1	6.0	1.6	5.5	1.3	4.8	1.2	4.4	1.1
200 x 45	10	7.4	1.5	7.2	1.2	6.8	1.1	6.3	1.0	NS	NS	NS	NS	8.0	1.3	7.0	1.0
	20	6.8	1.6	6.5	1.3	6.0	1.2	5.5	1.0	NS	NS	NS	NS	7.5	1.0	7.1	1.3
	30	6.3	1.7	6.0	1.4	5.4	1.2	4.9	1.0	7.9	1.5	7.5	1.2	7.0	1.1	6.5	1.0
	40	6.0	1.7	5.5	1.4	4.9	1.3	4.5	1.1	7.5	1.5	7.1	1.2	6.5	1.4	6.1	1.1
	60	5.4	1.8	4.9	1.5	4.4	1.3	4.0	1.1	6.9	1.6	6.5	1.3	5.9	1.2	5.4	1.1
	75	5.0	1.9	4.6	1.6	4.1	1.4	3.8	1.2	6.6	1.6	6.2	1.3	5.5	1.5	5.0	1.2
	90	4.8	1.9	4.4	1.6	3.9	1.5	3.5	1.2	6.3	1.7	5.9	1.4	5.2	1.3	4.7	1.2
240 x 45	10	8.3	1.9	8.1	1.5	7.6	1.4	7.3	1.2	NS	NS	NS	NS	9.3	1.5	8.0	1.2
	20	7.7	2.0	7.3	1.6	6.8	1.4	6.5	1.2	NS	NS	NS	NS	NS	NS	8.2	1.6
	30	7.2	2.0	6.8	1.7	6.3	1.4	5.9	1.2	NS	NS	NS	NS	7.9	NS	7.4	1.2
	40	6.8	2.1	6.5	1.7	5.9	1.5	5.4	1.2	NS	NS	NS	NS	7.5	1.4	7.0	1.2
	60	6.3	2.2	5.9	1.8	5.2	1.6	4.8	1.3	7.9	1.9	7.4	1.6	6.8	1.5	6.4	1.3
	75	6.0	2.3	5.5	1.9	4.9	1.6	4.5	1.4	7.5	2.0	7.1	1.6	6.6	1.5	6.0	1.4
	90	5.7	2.3	5.2	1.9	4.6	1.7	4.2	1.4	7.3	2.0	6.8	1.7	6.2	1.6	5.7	1.4
240 x 63	10	8.5	2.1	8.3	1.7	8.0	1.6	7.7	1.4	NS	NS	NS	NS	NS	NS	NS	NS
	20	8.0	2.3	7.7	1.9	7.2	1.7	6.9	1.4	NS	NS	NS	NS	NS	NS	NS	NS
	30	7.6	2.3	7.2	1.9	6.7	1.8	6.4	1.5	NS	NS	NS	NS	NS	NS	8.0	1.8
	40	7.2	2.4	6.9	2.0	6.3	1.8	6.0	1.5	NS	NS	NS	NS	8.0	1.6	7.5	1.5
	60	6.8	2.5	6.4	2.1	5.8	1.9	5.3	1.6	NS	NS	8.0	1.8	7.3	1.7	6.9	1.6
	75	6.5	2.6	6.1	2.2	5.4	2.0	5.0	1.7	NS	NS	7.6	1.9	6.5	1.8	6.1	1.7
	90	6.2	2.6	5.8	2.2	5.1	2.1	4.7	1.8	7.8	2.3	7.3	1.9	6.7	1.8	6.3	2.0
300 x 45	10	9.5	2.4	9.2	1.9	8.8	1.7	8.5	1.4	NS	NS	NS	NS	NS	NS	NS	NS
	20	8.8	2.5	8.5	2.0	8.0	1.7	7.6	1.4	NS	NS	NS	NS	NS	NS	NS	NS
	30	8.3	2.6	8.0	2.1	7.4	1.7	7.0	1.5	NS	NS	NS	NS	NS	NS	NS	NS
	40	8.0	2.7	7.6	2.2	7.0	1.8	6.6	1.5	NS	NS	NS	NS	NS	NS	NS	NS
	60	7.4	2.8	7.0	2.3	6.4	1.9	6.0	1.6	NS	NS	NS	NS	8.0	1.9	7.5	1.6
	75	7.1	2.8	6.7	2.4	6.1	2.0	5.6	1.7	NS	NS	NS	NS	7.6	1.9	7.1	1.7
	90	6.8	2.9	6.4	2.4	5.8	2.1	5.3	1.8	NS	NS	8.0	2.1	7.3	2.0	6.9	1.8
300 x 63	10	9.7	2.8	9.5	2.2	9.2	2.0	8.9	1.7	NS	NS	NS	NS	NS	NS	NS	NS
	20	9.2	2.9	8.9	2.4	8.4	2.1	8.0	1.8	NS	NS	NS	NS	NS	NS	NS	NS
	30	8.7	3.0	8.4	2.5	7.9	2.1	7.5	1.8	NS	NS	NS	NS	NS	NS	NS	NS
	40	8.4	3.0	8.0	2.5	7.5	2.2	7.1	1.8	NS	NS	NS	NS	NS	NS	NS	NS
	60	7.9	3.1	7.5	2.6	6.9	2.3	6.6	2.0	NS	NS	NS	NS	NS	NS	NS	NS
	75	7.6	3.2	7.2	2.7	6.7	2.4	6.2	2.0	NS	NS	NS	NS	NS	NS	7.7	2.0
	90	7.3	3.3	6.9	2.8	6.4	2.5	5.8	2.1	NS	NS	NS	NS	7.9	2.3	7.4	2.1
360 x 45	10	10.5	2.9	10.3	2.3	9.9	2.0	8.5	1.6	NS	NS	NS	NS	NS	NS	NS	NS
	20	9.9	3.0	9.5	2.4	9.0	2.0	8.6	1.7	NS	NS	NS	NS	NS	NS	NS	NS
	30	9.4	3.1	9.0	2.5	8.4	2.0	7.9	1.7	NS	NS	NS	NS	NS	NS	NS	NS
	40	9.0	3.2	8.6	2.6	7.9	2.1	7.5	1.8	NS	NS	NS	NS	NS	NS	NS	NS
	60	8.4	3.3	7.9	2.8	7.3	2.2	6.9	1.9	NS	NS	NS	NS	NS	NS	NS	NS
	75	8.0	3.4	7.6	2.8	7.0	2.3	6.6	2.0	NS	NS	NS	NS	NS	NS	7.7	2.0
	90	7.8	3.5	7.3	2.9	6.7	2.4	6.3	2.1	NS	NS	NS	NS	7.9	2.4	7.4	2.1
400 x 63	10	11.4	3.8	11.2	3.1	10.9	2.6	10.6	2.2	NS	NS	NS	NS	NS	NS	NS	NS
	20	10.9	3.9	10.6	3.2	10.1	2.7	9.7	2.3	NS	NS	NS	NS	NS	NS	NS	NS
	30	10.4	4.0	10.1	3.3	9.5	2.7	9.1	2.3	NS	NS	NS	NS	NS	NS	NS	NS
	40	10.1	4.1	9.7	3.4	9.1	2.8	8.6	2.4	NS	NS	NS	NS	NS	NS	NS	NS
	60	9.5	4.2	9.1	3.6	8.4	3.0	8.0	2.5	NS	NS	NS	NS	NS	NS	NS	NS
	75	9.2	4.3	8.7	3.7	8.1	3.1	7.6	2.6	NS	NS	NS	NS	NS	NS	NS	NS
	90	8.9	4.4	8.4	3.7	7.8	3.3	7.3	2.8	NS	NS	NS	NS	NS	NS	NS	NS

NS indicates that this span is not available due to manufacturing and transport length limitations

## ROOF BEAMS

RIDGE, INTERMEDIATE, EAVE  
AND BRESSUMMER BEAMS

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Sheet Roof and Ceiling											
	Roof Load Width 'RLW' (m)											
	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.8	5.4	6.0
<b>Maximum Single Span (m)</b>												
150 x 35	2.8	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0	1.9	1.8	1.8
150 x 45	3.0	2.8	2.7	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0	1.9
170 x 35	3.1	3.0	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.0
170 x 45	3.3	3.2	3.0	2.9	2.8	2.7	2.6	2.5	2.5	2.3	2.2	2.1
200 x 35	3.7	3.5	3.3	3.2	3.1	2.9	2.9	2.8	2.7	2.6	2.4	2.3
200 x 45	3.9	3.7	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.7	2.6	2.5
200 x 63	4.3	4.1	3.9	3.8	3.6	3.5	3.4	3.3	3.2	3.1	2.9	2.8
240 x 35	4.4	4.1	4.0	3.8	3.7	3.5	3.4	3.3	3.2	3.1	2.8	2.7
240 x 45	4.7	4.4	4.2	4.1	3.9	3.8	3.7	3.6	3.5	3.3	3.1	3.0
240 x 63	5.2	4.9	4.7	4.5	4.4	4.2	4.1	4.0	3.9	3.7	3.5	3.4
300 x 45	5.8	5.5	5.3	5.1	4.9	4.7	4.6	4.4	4.3	4.1	3.9	3.8
300 x 63	6.4	6.1	5.8	5.6	5.4	5.2	5.1	4.9	4.8	4.6	4.4	4.2
300 x 75	6.7	6.4	6.2	5.9	5.7	5.5	5.4	5.2	5.1	4.8	4.6	4.4
360 x 63	7.2	6.9	6.7	6.5	6.3	6.3	6.1	5.9	5.7	5.5	5.2	5.0
400 x 45	7.7	7.3	7.0	6.7	6.4	6.1	5.9	5.7	5.5	5.1	4.8	4.6
400 x 63	7.7	7.5	7.2	7.0	6.9	6.7	6.5	6.5	6.4	6.1	5.8	5.6
400 x 75	8.0	7.8	7.5	7.3	7.1	6.9	6.8	6.7	6.5	6.4	6.1	5.9
450 x 63	8.5	8.2	7.9	7.7	7.5	7.3	7.2	7.0	6.9	6.8	6.5	6.3
<b>Maximum Continuous Span (m)</b>												
150 x 35	3.7	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5	2.3
150 x 45	4.0	3.8	3.6	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.6	2.5
170 x 35	4.2	4.0	3.8	3.6	3.5	3.4	3.3	3.2	3.1	2.9	2.8	2.6
170 x 45	4.5	4.2	4.1	3.9	3.7	3.6	3.5	3.4	3.3	3.1	3.0	2.9
200 x 35	4.9	4.6	4.4	4.2	4.1	3.9	3.8	3.7	3.5	3.3	3.2	3.0
200 x 45	5.2	5.0	4.8	4.6	4.4	4.2	4.1	4.0	3.9	3.7	3.5	3.4
200 x 63	5.8	5.5	5.3	5.1	4.9	4.7	4.6	4.4	4.3	4.1	3.9	3.8
240 x 35	5.8	5.4	5.1	4.9	4.7	4.4	4.1	4.0	3.8	3.6	3.4	3.2
240 x 45	6.3	6.0	5.7	5.5	5.3	5.1	4.9	4.8	4.6	4.4	4.2	4.0
240 x 63	6.7	6.5	6.3	6.1	5.8	5.7	5.5	5.3	5.2	4.9	4.7	4.5
300 x 45	7.3	7.1	6.8	6.6	6.3	6.1	5.9	5.7	5.5	5.2	5.0	4.7
300 x 63	7.9	7.6	7.4	7.2	7.0	6.8	6.6	6.5	6.4	6.1	5.9	5.6
300 x 75	NS	7.9	7.7	7.5	7.3	7.1	6.9	6.8	6.6	6.5	6.2	5.9
360 x 63	NS	NS	NS	NS	8.0	7.8	7.6	7.4	7.3	7.0	6.8	6.6
400 x 45	NS	NS	7.7	7.2	6.9	6.6	6.3	6.0	5.8	5.5	5.2	5.0
400 x 63	NS	NS	NS	NS	NS	NS	NS	8.0	7.9	7.6	7.3	7.1
400 x 75	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.9	7.6	7.4



## ROOF BEAMS

RIDGE, INTERMEDIATE, EAVE  
AND BRESSUMMER BEAMS

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Tile Roof and Ceiling											
	Roof Load Width 'RLW' (m)											
	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.8	5.4	6.0
<b>Maximum Single Span (m)</b>												
150 x 35	2.2	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.4
150 x 45	2.3	2.2	2.1	2.0	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.5
170 x 35	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	1.8	1.7	1.7	1.6
170 x 45	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.8	1.7
200 x 35	2.9	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.0	1.8	1.8
200 x 45	3.1	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.0
200 x 63	3.4	3.3	3.1	3.0	2.9	2.8	2.7	2.6	2.6	2.4	2.3	2.3
240 x 35	3.4	3.3	3.1	3.0	2.9	2.7	2.6	2.5	2.4	2.2	2.0	1.9
240 x 45	3.7	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.6	2.5	2.4
240 x 63	4.1	3.9	3.7	3.6	3.5	3.3	3.2	3.2	3.1	2.9	2.8	2.7
300 x 45	4.6	4.4	4.2	4.0	3.9	3.7	3.6	3.5	3.4	3.3	3.1	3.0
300 x 63	5.1	4.8	4.6	4.5	4.3	4.2	4.0	3.9	3.8	3.7	3.5	3.4
300 x 75	5.4	5.1	4.9	4.7	4.5	4.4	4.3	4.2	4.1	3.9	3.7	3.6
360 x 63	6.1	5.8	5.5	5.3	5.2	5.0	4.8	4.7	4.6	4.4	4.2	4.0
400 x 45	6.1	5.8	5.5	5.3	5.0	4.8	4.6	4.4	4.2	4.0	3.7	3.5
400 x 63	6.6	6.3	6.1	5.9	5.7	5.5	5.4	5.2	5.1	4.9	4.7	4.5
400 x 75	6.8	6.6	6.4	6.2	6.0	5.8	5.7	5.5	5.4	5.1	4.9	4.7
450 x 63	7.1	6.9	6.7	6.5	6.3	6.2	6.0	5.9	5.7	5.5	5.2	5.0
<b>Maximum Continuous Span (m)</b>												
150 x 35	2.9	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.0	1.9	1.8
150 x 45	3.1	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.0
170 x 35	3.3	3.1	3.0	2.8	2.7	2.6	2.6	2.5	2.4	2.3	2.1	2.0
170 x 45	3.5	3.3	3.2	3.1	2.9	2.9	2.8	2.7	2.6	2.5	2.4	2.3
200 x 35	3.8	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.8	2.6	2.5	2.3
200 x 45	4.1	3.9	3.7	3.6	3.5	3.4	3.2	3.2	3.1	2.9	2.8	2.7
200 x 63	4.6	4.4	4.2	4.0	3.9	3.7	3.6	3.5	3.4	3.3	3.1	3.0
240 x 35	4.6	4.4	4.1	3.9	3.8	3.5	3.4	3.3	3.2	3.0	2.8	2.6
240 x 45	4.9	4.7	4.5	4.3	4.2	4.0	3.9	3.8	3.7	3.5	3.4	3.1
240 x 63	5.5	5.2	5.0	4.8	4.6	4.5	4.3	4.2	4.1	3.9	3.8	3.6
300 x 45	6.1	5.8	5.6	5.3	5.1	4.9	4.7	4.5	4.4	4.2	3.9	3.7
300 x 63	6.7	6.4	6.2	6.0	5.8	5.6	5.4	5.3	5.1	4.9	4.7	4.5
300 x 75	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.6	5.4	5.2	5.0	4.8
360 x 63	7.6	7.3	7.1	6.9	6.7	6.5	6.4	6.3	6.2	5.9	5.6	5.3
400 x 45	7.0	6.7	6.3	6.0	5.8	5.7	5.5	5.3	5.1	4.8	4.6	4.4
400 x 63	NS	7.9	7.7	7.4	7.3	7.1	6.9	6.8	6.6	6.3	5.9	5.7
400 x 75	NS	NS	8.0	7.8	7.6	7.4	7.2	7.1	6.9	6.7	6.5	6.3

NS indicates that this span is not available due to manufacturing and transport length limitations

**STRUTTING BEAMS**

SUPPORTING UNDERPURLINS ONLY

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Sheet Roof								
	Roof Area Supported (m <sup>2</sup> )								
	2	3	4	5	6	7	8	10	12
<b>Maximum Span (m)</b>									
150 x 45	4.0	3.7	3.2	2.9	2.7	2.5	2.3	2.1	NS
150 x 63	4.7	4.2	3.7	3.4	3.1	2.9	2.7	2.5	2.3
2/150 x 35	5.0	4.4	3.9	3.6	3.3	3.1	2.9	2.6	2.4
150 x 75	5.1	4.5	4.0	3.7	3.4	3.1	3.0	2.7	2.4
170 x 45	4.8	4.3	3.8	3.5	3.2	3.0	2.8	2.5	2.2
170 x 63	5.4	4.9	4.4	4.0	3.7	3.5	3.3	2.9	2.7
200 x 63	6.4	6.0	5.5	5.0	4.7	4.4	4.1	3.7	3.4
2/200 x 35	6.7	6.2	5.7	5.3	4.9	4.6	4.3	3.8	3.3
2/200 x 45	7.0	6.5	6.1	5.7	5.4	5.1	4.8	4.4	4.0
240 x 63	7.5	7.0	6.6	6.2	5.9	5.6	5.3	4.8	4.4
2/240 x 45	7.9	7.5	7.1	6.8	6.5	6.3	6.1	5.6	5.2
300 x 63	8.9	8.3	7.9	7.5	7.2	7.0	6.7	6.4	6.0
300 x 75	9.1	8.6	8.2	7.8	7.5	7.3	7.0	6.7	6.3
2/300 x 45	9.2	8.8	8.4	8.1	7.8	7.6	7.4	6.6	6.1
360 x 63	10.0	9.5	9.1	8.7	8.4	8.2	7.9	7.5	7.1
400 x 63	10.7	10.3	9.9	9.5	9.2	8.9	8.6	8.2	7.8
400 x 75	10.9	10.5	10.1	9.8	9.5	9.2	9.0	8.5	8.2
450 x 63	11.6	11.1	10.7	10.4	10.1	9.8	9.5	9.1	8.4

- 1 All sections with depth to breadth ratio exceeding three must be restrained against rollover at supports.
- 2 All sections with a depth to breadth ratio exceeding three must be laterally restrained at each strutting point in accordance with AS1684.2:2010.
- 3 Multiple sections nail laminated as per AS1684.2:2010.
- 4 A minimum initial clearance of 25mm to ceiling framing members shall be provided at mid-span.
- 5 Bearing length at end supports to be not less than 70mm.
- 6 Beam ends may be chamfer cut to a minimum depth of 90mm or D/3, whichever is greater.
- 7 NS signifies section size unlikely to be suitable.

**STRUTTING BEAMS**

SUPPORTING UNDERPURLINS ONLY

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Tile Roof								
	Roof Area Supported (m <sup>2</sup> )								
	2	3	4	5	6	7	8	10	12
<b>Maximum Span (m)</b>									
150 x 45	3.0	2.5	2.2	NS	NS	NS	NS	NS	NS
150 x 63	3.5	2.9	2.5	2.3	2.1	NS	NS	NS	NS
2/150 x 35	3.7	3.1	2.7	2.4	2.2	2.1	NS	NS	NS
150 x 75	3.8	3.1	2.8	2.5	2.3	2.1	2.0	NS	NS
170 x 45	3.6	3.0	2.6	2.3	2.1	2.0	1.9	NS	NS
170 x 63	4.1	3.5	3.0	2.7	2.5	2.3	2.2	2.0	NS
200 x 63	5.2	4.4	3.8	3.5	3.2	3.0	2.8	2.5	2.3
2/200 x 35	5.4	4.6	4.1	3.7	3.4	3.2	3.0	2.7	2.4
2/200 x 45	5.9	5.1	4.5	4.1	3.8	3.5	3.3	3.0	2.7
240 x 63	6.3	5.6	5.0	4.5	4.1	3.9	3.6	3.3	3.0
2/240 x 45	6.9	6.3	5.7	5.3	4.9	4.5	4.3	3.9	3.5
300 x 63	7.7	7.0	6.5	6.1	5.7	5.3	5.0	4.5	4.1
300 x 75	7.9	7.3	6.8	6.4	6.1	5.7	5.4	4.9	4.5
2/300 x 45	8.2	7.6	7.1	6.7	6.4	6.1	5.8	5.3	4.9
360 x 63	8.9	8.2	7.6	7.2	6.8	6.6	6.3	5.9	5.4
400 x 63	9.6	8.9	8.3	7.9	7.5	7.2	7.0	6.5	6.2
400 x 75	9.9	9.2	8.7	8.2	7.9	7.6	7.3	6.9	6.5
450 x 63	10.5	9.8	9.2	8.8	8.4	8.0	7.8	7.3	6.9

- 1 All sections with depth to breadth ratio exceeding three must be restrained against rollover at supports.
- 2 All sections with a depth to breadth ratio exceeding three must be laterally restrained at each strutting point in accordance with AS1684.2:2010.
- 3 Multiple sections nail laminated as per AS1684.2:2010.
- 4 A minimum initial clearance of 25mm to ceiling framing members shall be provided at mid-span.
- 5 Bearing length at end supports to be not less than 70mm.
- 6 Beam ends may be chamfer cut to a minimum depth of 90mm or D/3, whichever is greater.
- 7 NS signifies section size unlikely to be suitable.

**STRUTTING – COUNTER BEAMS**SUPPORTING UNDERPURLINS  
AND HANGING BEAMS

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Average Hanging Beam Span (m)											
	2.4						4.2					
	Roof Area Supported (m <sup>2</sup> )											
	2	4	6	8	10	12	2	4	6	8	10	12
<b>Maximum Span for Sheet Roof &amp; Ceiling (m)</b>												
170 x 63	4.0	3.6	3.3	3.0	2.7	2.6	3.7	3.3	3.1	2.8	2.6	2.5
2/170 x 35	4.1	3.8	3.5	3.2	2.9	2.7	3.8	3.5	3.2	3.0	2.8	2.6
2/170 x 45	4.3	4.0	3.7	3.5	3.2	3.0	4.0	3.7	3.5	3.3	3.1	2.9
200 x 63	4.5	4.2	3.9	3.7	3.4	3.2	4.2	3.9	3.7	3.5	3.2	3.1
2/200 x 35	4.7	4.3	4.0	3.8	3.6	3.4	4.3	4.0	3.8	3.6	3.4	3.2
2/200 x 45	4.9	4.5	4.3	4.0	3.8	3.7	4.5	4.3	4.0	3.9	3.7	3.6
240 x 63	5.2	4.8	4.5	4.3	4.1	3.9	4.8	4.5	4.3	4.1	3.9	3.8
2/240 x 45	5.6	5.2	5.0	4.7	4.5	4.3	5.1	4.9	4.7	4.5	4.3	4.2
300 x 63	6.1	5.7	5.4	5.2	5.0	4.8	5.6	5.3	5.1	4.9	4.7	4.6
300 x 75	6.3	6.0	5.7	5.4	5.2	5.0	5.8	5.5	5.3	5.1	5.0	4.8
2/300 x 45	6.5	6.2	5.9	5.7	5.5	5.3	6.0	5.8	5.6	5.4	5.2	5.1
360 x 63	6.9	6.6	6.3	6.0	5.8	5.6	6.3	6.1	5.9	5.7	5.5	5.4
400 x 63	7.4	7.1	6.8	6.6	6.3	6.1	6.8	6.6	6.4	6.2	6.0	5.8
400 x 75	7.7	7.4	7.1	6.8	6.6	6.4	7.1	6.8	6.6	6.4	6.3	6.1
2/400 x 45	7.9	7.6	7.3	7.1	6.9	6.7	7.3	7.1	6.9	6.7	6.5	6.4
450 x 63	8.1	7.7	7.4	7.2	7.0	6.8	7.4	7.2	7.0	6.8	6.6	6.4
2/450 x 63	9.0	8.8	8.5	8.3	8.1	7.9	8.4	8.2	8.0	7.9	7.7	7.5
<b>Maximum Span for Tile Roof and Ceiling (m)</b>												
170 x 63	3.5	2.8	2.4	2.1	1.9	NS	3.2	2.7	2.3	2.1	1.9	NS
2/170 x 35	3.7	3.0	2.6	2.3	2.0	1.9	3.4	2.8	2.5	2.2	2.0	1.9
2/170 x 45	3.9	3.3	2.8	2.5	2.3	2.1	3.7	3.1	2.7	2.4	2.2	2.1
200 x 63	4.1	3.5	3.0	2.7	2.4	2.2	3.8	3.3	2.9	2.6	2.4	2.2
2/200 x 35	4.2	3.7	3.2	2.8	2.6	2.4	4.0	3.5	3.1	2.8	2.5	2.3
2/200 x 45	4.4	3.9	3.5	3.1	2.9	2.6	4.2	3.8	3.4	3.1	2.8	2.6
240 x 63	4.7	4.1	3.8	3.4	3.1	2.9	4.4	4.0	3.7	3.3	3.1	2.8
2/240 x 45	5.1	4.6	4.2	3.9	3.7	3.4	4.8	4.4	4.1	3.8	3.6	3.3
300 x 63	5.6	5.0	4.6	4.3	4.1	3.9	5.3	4.8	4.5	4.2	4.0	3.8
300 x 75	5.9	5.3	4.8	4.5	4.3	4.1	5.5	5.0	4.7	4.4	4.2	4.0
2/300 x 45	6.1	5.5	5.1	4.8	4.5	4.3	5.7	5.3	4.9	4.6	4.4	4.2
360 x 63	6.5	5.9	5.4	5.1	4.8	4.6	6.0	5.6	5.2	4.9	4.7	4.5
400 x 63	7.0	6.4	5.9	5.6	5.3	5.0	6.5	6.1	5.7	5.4	5.1	4.9
400 x 75	7.3	6.7	6.2	5.9	5.6	5.3	6.8	6.3	6.0	5.7	5.4	5.2
2/400 x 45	7.5	7.0	6.5	6.1	5.8	4.8	7.0	6.6	6.2	5.9	5.0	4.7
450 x 63	7.6	7.0	6.6	6.2	5.9	5.6	7.1	6.7	6.3	6.0	5.7	5.5
2/450 x 63	8.7	8.2	7.7	7.4	7.1	6.8	8.1	7.7	7.4	7.1	6.9	6.6

- 1 Average hanging beam span =  $(H1 + H2) / 2$ , where H1 and H2 are the spans of the hanging beams on each side of the Strutting – Counter Beam.
- 2 All sections with depth to breadth ratio exceeding three must be restrained against rollover at supports.
- 3 Multiple sections nail laminated as per AS1684.2:2010.
- 4 Bearing length at end supports to be not less than 70mm.
- 5 Beam ends may be chamfer cut to a minimum depth of 90mm or D/3, whichever is greater.
- 6 NS signifies section size unlikely to be suitable.

## STRUTTING - HANGING BEAMS

### SUPPORTING UNDERPURLINS AND CEILING JOISTS

### WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Ceiling Load Width (CLW) (m)												
	2.4				3.0				3.6				
	Roof Load Width (RLW) for Underpurlin (m)												
	1.8	2.4	3.0	3.6	1.8	2.4	3.0	3.6	1.8	2.4	3.0	3.6	4.2
<b>Maximum Span for Sheet Roof &amp; Ceiling (m)</b>													
170 x 63	3.6	3.5	3.3	3.2	3.5	3.3	3.2	3.1	3.3	3.2	3.1	3.0	2.9
2/170 x 35	3.7	3.6	3.5	3.3	3.6	3.5	3.3	3.2	3.5	3.3	3.2	3.1	3.0
2/170 x 45	3.9	3.8	3.7	3.6	3.8	3.7	3.6	3.5	3.7	3.6	3.5	3.3	3.3
200 x 63	4.1	3.9	3.8	3.7	3.9	3.8	3.7	3.6	3.8	3.7	3.6	3.5	3.4
2/200 x 35	4.2	4.1	3.9	3.8	4.1	3.9	3.8	3.7	3.9	3.8	3.7	3.6	3.6
2/200 x 45	4.4	4.3	4.1	4.0	4.3	4.1	4.0	3.9	4.1	4.0	3.9	3.8	3.8
240 x 63	4.7	4.5	4.4	4.2	4.5	4.4	4.2	4.1	4.4	4.2	4.1	4.0	4.0
2/240 x 45	5.0	4.9	4.7	4.6	4.9	4.7	4.6	4.5	4.7	4.6	4.5	4.4	4.3
300 x 63	5.5	5.3	5.1	5.0	5.3	5.1	5.0	4.9	5.1	5.0	4.9	4.8	4.7
300 x 75	5.7	5.5	5.3	5.2	5.5	5.3	5.2	5.1	5.3	5.2	5.1	5.0	4.9
2/300 x 45	5.9	5.7	5.5	5.4	5.7	5.6	5.4	5.3	5.5	5.4	5.3	5.2	5.1
360 x 63	6.2	6.0	5.8	5.7	6.0	5.9	5.7	5.6	5.8	5.7	5.6	5.4	5.3
400 x 63	6.7	6.5	6.3	6.1	6.5	6.3	6.2	6.0	6.3	6.1	6.0	5.9	5.8
400 x 75	7.0	6.7	6.6	6.4	6.8	6.6	6.4	6.2	6.6	6.4	6.2	6.1	6.0
2/400 x 45	7.2	7.0	6.8	6.6	7.0	6.8	6.6	6.5	6.8	6.6	6.5	6.4	6.2
450 x 63	7.3	7.1	6.9	6.7	7.1	6.9	6.7	6.5	6.9	6.7	6.5	6.4	6.3
2/450 x 63	8.3	8.1	7.9	7.7	8.1	7.9	7.7	7.6	7.9	7.7	7.6	7.4	7.3
<b>Maximum Span for Tile Roof &amp; Ceiling (m)</b>													
170 x 63	3.1	2.9	2.7	2.6	3.0	2.8	2.7	2.6	2.9	2.7	2.6	2.5	2.4
2/170 x 35	3.2	3.0	2.8	2.7	3.1	2.9	2.8	2.7	3.0	2.9	2.7	2.6	2.5
2/170 x 45	3.5	3.2	3.1	2.9	3.4	3.2	3.0	2.9	3.3	3.1	2.9	2.8	2.7
200 x 63	3.6	3.4	3.2	3.0	3.5	3.3	3.1	3.0	3.4	3.2	3.1	2.9	2.8
2/200 x 35	3.7	3.5	3.3	3.2	3.7	3.4	3.3	3.1	3.6	3.4	3.2	3.1	3.0
2/200 x 45	3.9	3.7	3.6	3.4	3.8	3.7	3.5	3.4	3.8	3.6	3.4	3.3	3.2
240 x 63	4.1	3.9	3.8	3.6	4.0	3.9	3.7	3.6	4.0	3.8	3.7	3.5	3.4
2/240 x 45	4.5	4.3	4.1	4.0	4.4	4.2	4.0	3.9	4.3	4.1	4.0	3.9	3.8
300 x 63	4.9	4.6	4.4	4.3	4.8	4.6	4.4	4.2	4.7	4.5	4.3	4.2	4.1
300 x 75	5.1	4.8	4.6	4.5	5.0	4.7	4.6	4.4	4.9	4.7	4.5	4.4	4.2
2/300 x 45	5.3	5.0	4.8	4.7	5.2	4.9	4.8	4.6	5.1	4.9	4.7	4.5	4.4
360 x 63	5.6	5.3	5.1	4.9	5.4	5.2	5.0	4.8	5.3	5.1	4.9	4.8	4.6
400 x 63	6.0	5.7	5.5	5.3	5.9	5.6	5.4	5.2	5.8	5.5	5.3	5.2	5.0
400 x 75	6.2	5.9	5.7	5.5	6.1	5.8	5.6	5.5	6.0	5.7	5.5	5.4	5.2
2/400 x 45	6.5	6.2	6.0	5.8	6.4	6.1	5.9	5.7	6.2	6.0	5.8	5.6	5.5
450 x 63	6.5	6.2	6.0	5.8	6.4	6.1	5.9	5.7	6.3	6.0	5.8	5.6	5.5
2/450 x 63	7.6	7.2	7.0	6.8	7.4	7.1	6.9	6.7	7.3	7.0	6.8	6.6	6.4

- 1 All sections with depth to breadth ratio exceeding three must be restrained against rollover at supports.
- 2 All sections with a depth to breadth ratio exceeding three must be laterally restrained at each strutting point in accordance with AS1684.2:2010.
- 3 RLW for underpurlin is the average of the rafter spans on each side of the underpurlin supported by the Strutting – Hanging Beam.
- 4 Underpurlin span assumed to be one-half the Strutting – Hanging Beam span.
- 5 CLW is the average of the ceiling joist spans on each side of the Strutting – Hanging Beam.
- 6 Multiple sections nail laminated as per AS1684.2:2010.
- 7 Bearing length at end supports to be not less than 70mm.
- 8 Beam ends may be chamfer cut to a minimum depth of 90mm or D/3, whichever is greater.

**COUNTER BEAMS**

## SUPPORTING HANGING BEAMS

e-beam Section D X B (mm)	Ceiling Load Width 'CLW' (m)							
	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6
	Maximum Span (m)							
150 x 35	3.4	3.2	3.0	2.9	2.8	2.7	2.6	2.5
150 x 45	3.7	3.4	3.3	3.1	3.0	2.9	2.8	2.7
170 x 35	3.9	3.6	3.4	3.3	3.1	3.0	2.8	2.7
170 x 45	4.2	3.9	3.7	3.5	3.4	3.2	3.1	3.0
200 x 35	4.4	4.1	3.8	3.6	3.5	3.2	3.1	3.0
200 x 45	4.8	4.5	4.3	4.1	3.9	3.8	3.7	3.6
200 x 63	5.1	4.9	4.7	4.5	4.4	4.2	4.1	4.0
240 x 35	4.8	4.4	4.1	4.0	3.8	3.6	3.5	3.4
240 x 45	5.4	5.2	5.0	4.8	4.6	4.3	4.2	4.1
240 x 63	5.8	5.6	5.3	5.2	5.0	4.9	4.8	4.7
300 x 45	6.4	6.0	5.6	5.3	5.1	4.8	4.7	4.6
300 x 63	6.8	6.5	6.3	6.1	5.9	5.7	5.6	5.5
300 x 75	7.0	6.7	6.5	6.3	6.1	6.0	5.8	5.7
360 x 63	7.7	7.4	7.1	6.9	6.7	6.5	6.4	6.3
400 x 45	6.9	6.4	6.1	5.7	5.5	5.3	5.1	5.0
400 x 63	8.3	7.9	7.7	7.4	7.2	7.1	6.9	6.8
400 x 75	8.5	8.2	7.9	7.7	7.5	7.3	7.2	7.0
450 x 63	8.9	8.6	8.3	8.1	7.9	7.7	7.4	7.2

- 1 Counter beams to support ceiling loads only – via hanging beams.
- 2 Bearing length at end supports to be not less than 70mm.
- 3 Beam ends may be chamfer cut to a minimum depth of 90mm or D/3, whichever is greater.



## VERANDAH BEAMS

## WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Roof Mass kg/m <sup>2</sup>	Single Span							Continuous Span						
		Roof Load Width 'RLW' (m)													
		0.9	1.2	1.5	1.8	2.1	2.4	2.7	0.9	1.2	1.5	1.8	2.1	2.4	2.7
		Maximum Span (m)													
130 x 35	10	3.6	3.3	3.1	2.9	2.8	2.7	2.6	4.0	3.9	3.7	3.4	3.2	3.0	2.8
	20	3.3	3.0	2.8	2.7	2.5	2.5	2.4	4.0	3.9	3.7	3.4	3.2	3.0	2.9
	40	2.7	2.5	2.4	2.3	2.1	1.9	1.9	3.6	3.3	3.0	2.9	2.7	2.6	2.5
	75	2.3	2.0	1.9	1.7	1.6	1.6	1.5	3.0	2.7	2.5	2.4	2.2	2.1	2.1
	90	2.1	1.9	1.8	1.7	1.6	1.5	1.5	2.8	2.6	2.4	2.2	2.1	2.0	1.9
130 x 45	10	3.9	3.5	3.3	3.1	2.9	2.9	2.8	4.2	4.2	4.1	3.8	3.5	3.3	3.1
	20	3.5	3.2	3.0	2.8	2.7	2.6	2.5	4.2	4.2	4.0	3.7	3.5	3.4	3.2
	40	2.9	2.7	2.5	2.4	2.3	2.2	2.1	3.9	3.5	3.3	3.1	2.9	2.8	2.7
	75	2.4	2.2	2.0	1.9	1.8	1.7	1.6	3.2	2.9	2.7	2.5	2.4	2.3	2.2
	90	2.3	2.1	1.9	1.7	1.7	1.6	1.6	3.1	2.8	2.6	2.4	2.3	2.2	2.1
130 x 63	10	4.2	4.0	3.7	3.4	3.3	3.2	3.0	5.1	5.0	4.8	4.4	4.2	4.0	3.7
	20	3.8	3.5	3.3	3.1	2.9	2.8	2.7	4.9	4.5	4.3	4.1	3.9	3.7	3.6
	40	3.2	2.9	2.8	2.6	2.5	2.4	2.4	4.2	3.9	3.7	3.4	3.2	3.1	3.0
	75	2.7	2.4	2.3	2.1	2.0	1.9	1.8	3.6	3.2	3.0	2.8	2.7	2.6	2.5
	90	2.5	2.3	2.1	2.0	1.9	1.8	1.7	3.4	3.1	2.9	2.7	2.5	2.4	2.4
150 x 35	10	4.1	3.8	3.5	3.3	3.2	3.0	2.9	5.0	4.8	4.2	3.9	3.6	3.4	3.2
	20	3.8	3.4	3.2	3.0	2.8	2.7	2.7	4.8	4.4	4.2	4.0	3.7	3.4	3.3
	40	3.1	2.9	2.7	2.6	2.4	2.4	2.3	4.1	3.8	3.5	3.3	3.1	3.0	2.9
	75	2.6	2.4	2.2	2.0	1.9	1.8	1.7	3.4	3.1	2.9	2.7	2.6	2.5	2.4
	90	2.5	2.2	2.0	1.9	1.8	1.7	1.6	3.2	3.0	2.7	2.6	2.5	2.4	2.2
150 x 45	10	4.4	4.1	3.8	3.5	3.4	3.3	3.1	5.2	5.1	4.9	4.5	4.1	3.8	3.5
	20	4.0	3.6	3.4	3.2	3.0	2.9	2.8	5.0	4.7	4.4	4.2	4.1	3.9	3.7
	40	3.3	3.0	2.8	2.7	2.6	2.5	2.4	4.3	4.1	3.8	3.6	3.4	3.2	3.1
	75	2.8	2.5	2.4	2.2	2.1	2.0	1.9	3.7	3.4	3.1	3.0	2.8	2.7	2.6
	90	2.6	2.4	2.2	2.1	2.0	1.8	1.8	3.6	3.2	3.0	2.8	2.6	2.5	2.4
150 x 63	10	4.8	4.6	4.3	4.0	3.8	3.6	3.5	5.7	5.5	5.3	5.1	4.9	4.7	4.3
	20	4.3	4.0	3.8	3.5	3.3	3.2	3.0	5.3	5.0	4.8	4.5	4.4	4.2	4.1
	40	3.7	3.3	3.1	3.0	2.8	2.7	2.6	4.7	4.4	4.2	3.9	3.7	3.6	3.4
	75	3.1	2.8	2.6	2.5	2.3	2.2	2.2	4.1	3.7	3.5	3.3	3.1	3.0	2.9
	90	2.9	2.6	2.5	2.4	2.2	2.1	2.0	3.9	3.6	3.3	3.1	3.0	2.8	2.7
170 x 35	10	4.5	4.4	4.0	3.8	3.5	3.4	3.2	5.4	5.1	4.8	4.3	4.0	3.7	3.5
	20	4.2	3.8	3.5	3.3	3.2	3.0	2.9	5.2	4.9	4.6	4.4	4.1	3.9	3.6
	40	3.5	3.2	3.0	2.8	2.7	2.6	2.5	4.5	4.2	4.0	3.7	3.6	3.4	3.2
	75	2.9	2.7	2.5	2.3	2.2	2.1	2.0	3.9	3.6	3.3	3.1	3.0	2.8	2.7
	90	2.8	2.5	2.4	2.2	2.1	1.9	1.9	3.7	3.3	3.1	2.9	2.8	2.6	2.5
170 x 45	10	4.9	4.6	4.4	4.1	3.9	3.7	3.5	5.7	5.6	5.4	5.1	4.8	4.4	4.1
	20	4.4	4.1	3.8	3.6	3.4	3.2	3.1	5.5	5.1	4.9	4.6	4.4	4.3	4.1
	40	3.7	3.4	3.1	3.0	2.9	2.7	2.6	4.8	4.4	4.2	4.0	3.8	3.6	3.5
	75	3.1	2.9	2.7	2.5	2.4	2.3	2.2	4.1	3.8	3.6	3.3	3.2	3.0	2.9
	90	3.0	2.7	2.5	2.4	2.2	2.1	2.0	4.0	3.6	3.3	3.2	3.0	2.9	2.7

## VERANDAH BEAMS CONTINUED

## WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Roof Mass kg/m <sup>2</sup>	Single Span							Continuous Span						
		Roof Load Width 'RLW' (m)													
		0.9	1.2	1.5	1.8	2.1	2.4	2.7	0.9	1.2	1.5	1.8	2.1	2.4	2.7
Maximum Span (m)															
170 x 63	10	5.2	4.9	4.7	4.5	4.3	4.1	4.0	6.2	6.1	5.8	5.6	5.4	5.2	5.0
	20	4.7	4.4	4.2	4.0	3.8	3.6	3.4	5.8	5.5	5.2	5.0	4.8	4.6	4.5
	40	4.1	3.8	3.5	3.3	3.1	3.0	2.9	5.1	4.8	4.5	4.3	4.2	4.0	3.9
	75	3.5	3.2	2.9	2.7	2.7	2.5	2.4	4.5	4.2	4.0	3.7	3.6	3.4	3.2
	90	3.3	3.0	2.8	2.6	2.5	2.4	2.3	4.3	4.0	3.7	3.6	3.3	3.2	3.1
200 x 35	10	5.3	5.0	4.7	4.4	3.9	3.6	3.4	6.1	5.7	5.2	4.9	4.6	4.3	4.1
	20	4.8	4.4	4.2	4.0	3.7	3.6	3.4	5.9	5.5	5.2	5.0	4.8	4.4	4.2
	40	4.1	3.7	3.5	3.3	3.1	3.0	2.8	5.1	4.8	4.5	4.3	4.1	4.0	3.8
	75	3.4	3.1	2.9	2.7	2.6	2.5	2.4	4.4	4.1	3.9	3.7	3.5	3.3	3.2
	90	3.2	2.9	2.7	2.6	2.5	2.3	2.3	4.2	4.0	3.7	3.4	3.3	3.1	3.0
200 x 45	10	5.4	5.2	4.9	4.8	4.5	4.3	4.2	6.5	6.3	6.0	5.7	5.3	5.1	4.9
	20	4.9	4.6	4.4	4.2	4.0	3.8	3.6	6.1	5.7	5.5	5.2	5.0	4.9	4.7
	40	4.3	4.0	3.7	3.5	3.3	3.1	3.0	5.3	5.0	4.8	4.5	4.3	4.2	4.1
	75	3.7	3.4	3.1	2.9	2.8	2.6	2.5	4.7	4.4	4.1	3.9	3.7	3.6	3.4
	90	3.5	3.2	2.9	2.8	2.6	2.5	2.4	4.5	4.2	4.0	3.7	3.6	3.3	3.2
200 x 63	10	5.8	5.5	5.2	5.0	4.9	4.7	4.6	7.2	6.8	6.5	6.3	6.0	5.8	5.6
	20	5.2	5.0	4.8	4.5	4.3	4.2	4.0	6.5	6.2	5.9	5.6	5.4	5.2	5.1
	40	4.6	4.4	4.1	3.9	3.7	3.5	3.4	5.7	5.4	5.1	4.9	4.8	4.5	4.4
	75	4.0	3.7	3.5	3.2	3.1	2.9	2.8	5.0	4.7	4.4	4.3	4.1	4.0	3.8
	90	3.9	3.5	3.3	3.0	2.9	2.8	2.7	4.8	4.5	4.3	4.1	3.9	3.7	3.6
240 x 45	10	6.2	5.8	5.6	5.3	5.1	5.0	4.8	7.7	7.3	6.9	6.5	6.0	5.7	5.5
	20	5.5	5.2	5.0	4.8	4.6	4.5	4.3	6.9	6.5	6.2	6.0	5.7	5.5	5.3
	40	4.9	4.6	4.3	4.2	4.0	3.8	3.6	6.1	5.7	5.4	5.2	5.0	4.8	4.7
	75	4.3	4.0	3.8	3.5	3.3	3.2	3.1	5.3	5.0	4.7	4.5	4.3	4.2	4.1
	90	4.1	3.8	3.5	3.3	3.1	3.0	2.9	5.1	4.8	4.5	4.3	4.2	4.0	3.9
240 x 63	10	6.5	6.1	5.9	5.7	5.5	5.3	5.2	NS	7.7	7.4	7.2	6.8	6.6	6.4
	20	5.9	5.6	5.4	5.1	5.0	4.8	4.6	7.4	7.0	6.6	6.4	6.2	6.0	5.8
	40	5.3	5.0	4.7	4.5	4.3	4.2	4.1	6.5	6.2	5.8	5.6	5.4	5.2	5.1
	75	4.6	4.3	4.1	3.9	3.7	3.6	3.4	5.7	5.4	5.1	4.9	4.7	4.5	4.4
	90	4.4	4.2	3.9	3.7	3.5	3.3	3.2	5.5	5.2	4.9	4.7	4.5	4.4	4.2
300 x 45	10	7.2	6.8	6.5	6.2	6.0	5.8	5.6	NS	NS	8.0	7.5	7.1	6.7	6.3
	20	6.5	6.1	5.8	5.6	5.4	5.2	5.0	NS	7.6	7.3	7.0	6.7	6.5	6.3
	40	5.7	5.4	5.1	4.9	4.7	4.6	4.4	7.2	6.7	6.4	6.1	5.9	5.7	5.5
	75	5.0	4.7	4.5	4.2	4.1	4.0	3.8	6.3	5.9	5.5	5.3	5.1	4.9	4.8
	90	4.8	4.5	4.3	4.1	3.9	3.7	3.6	6.0	5.6	5.3	5.1	4.9	4.8	4.6
300 x 63	10	7.5	7.2	6.9	6.6	6.4	6.2	6.0	NS	NS	NS	NS	8.0	7.7	7.5
	20	6.9	6.5	6.2	6.0	5.8	5.6	5.4	NS	NS	7.7	7.4	7.2	7.0	6.7
	40	6.1	5.8	5.5	5.3	5.1	5.0	4.8	7.6	7.2	6.8	6.6	6.4	6.2	6.0
	75	5.4	5.1	4.8	4.6	4.4	4.3	4.2	6.7	6.3	6.0	5.7	5.5	5.3	5.2
	90	5.2	4.9	4.6	4.5	4.2	4.1	4.0	6.5	6.1	5.8	5.5	5.3	5.1	5.0

NS indicates that this span is not available due to manufacturing and transport length limitations.

1 Bearing length at end supports to be not less than 30mm and at intermediate supports for continuous span at least 65mm.

**LINTELS**

IN SINGLE OR UPPER STOREY  
LOAD BEARING EXTERNAL WALLS

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Sheet Roof and Ceiling									
	Roof Load Width 'RLW' (m)									
	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
	Maximum Span (m)									
150 x 35	2.9	2.7	2.6	2.5	2.4	2.3	2.1	2.0	1.9	1.8
150 x 45	3.1	2.9	2.7	2.6	2.5	2.4	2.4	2.2	2.1	2.1
170 x 35	3.2	3.0	2.8	2.7	2.6	2.5	2.4	2.4	2.3	2.2
170 x 45	3.3	3.1	3.0	2.8	2.7	2.6	2.5	2.5	2.4	2.4
200 x 35	3.6	3.3	3.1	3.0	2.9	2.8	2.7	2.7	2.6	2.5
200 x 45	3.7	3.5	3.3	3.2	3.0	2.9	2.9	2.8	2.7	2.7
200 x 63	4.0	3.8	3.6	3.4	3.3	3.2	3.1	3.0	3.0	2.9
240 x 35	4.0	3.8	3.6	3.4	3.3	3.2	3.1	3.0	2.9	2.9
240 x 45	4.3	4.0	3.8	3.6	3.5	3.4	3.3	3.2	3.1	3.0
240 x 63	4.6	4.3	4.1	3.9	3.8	3.6	3.5	3.5	3.4	3.3
300 x 45	5.0	4.8	4.5	4.2	4.1	4.0	3.9	3.8	3.7	3.6
300 x 63	5.4	5.1	4.8	4.6	4.5	4.3	4.2	4.1	4.0	3.9
300 x 75	5.6	5.3	5.0	4.8	4.7	4.5	4.4	4.2	4.1	4.1
2/300 x 45	5.8	5.5	5.3	5.1	4.9	4.8	4.6	4.5	4.4	4.3
360 x 63	6.1	5.7	5.5	5.3	5.1	5.0	4.8	4.8	4.6	4.5
400 x 45	6.1	5.8	5.5	5.3	5.1	5.0	4.8 <sub>(45)</sub>	4.7 <sub>(45)</sub>	4.6 <sub>(45)</sub>	4.3 <sub>(45)</sub>
400 x 63	6.6	6.2	5.9	5.7	5.5	5.3	5.2	5.1	5.0 <sub>(45)</sub>	4.9 <sub>(45)</sub>
400 x 75	6.9	6.4	6.1	5.9	5.7	5.5	5.4	5.3	5.2	5.1 <sub>(45)</sub>
2/400 x 45	7.1	6.7	6.4	6.1	5.9	5.8	5.6	5.5	5.4	5.3
450 x 63	7.2	6.8	6.4	6.2	6.0	5.8	5.6	5.5 <sub>(45)</sub>	5.4 <sub>(45)</sub>	5.3 <sub>(70)</sub>

e-beam Section D X B (mm)	Tile Roof and Ceiling									
	Roof Load Width 'RLW' (m)									
	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	7.2
	Maximum Span (m)									
150 x 35	2.3	2.0	1.9	1.8	1.7	1.6	1.5	1.5	1.4	1.4
150 x 45	2.4	2.2	2.0	1.9	1.8	1.7	1.7	1.6	1.5	1.5
170 x 35	2.6	2.3	2.2	2.0	1.9	1.8	1.7	1.7	1.6	1.6
170 x 45	2.7	2.5	2.3	2.2	2.0	1.9	1.9	1.8	1.7	1.7
200 x 35	2.9	2.6	2.5	2.4	2.2	2.1	2.0	1.9	1.9	1.8
200 x 45	3.1	2.8	2.6	2.5	2.4	2.3	2.2	2.1	2.0	2.0
200 x 63	3.4	3.1	2.9	2.8	2.6	2.6	2.5	2.4	2.3	2.2
240 x 35	3.4	3.1	2.9	2.8	2.6	2.6	2.5	2.4	2.3	2.2
240 x 45	3.6	3.3	3.1	3.0	2.8	2.7	2.6	2.5	2.5	2.4
240 x 63	3.8	3.6	3.4	3.2	3.1	3.0	2.9	2.8	2.7	2.6
300 x 45	4.1	3.9	3.7	3.5	3.4	3.2	3.2	3.1	3.0	2.9
300 x 63	4.5	4.2	4.0	3.8	3.7	3.6	3.5	3.4	3.3	3.2
300 x 75	4.7	4.3	4.1	3.9	3.9	3.7	3.6	3.5	3.5	3.4
2/300 x 45	4.9	4.6	4.3	4.1	4.0	3.9	3.8	3.7	3.6	3.6
360 x 63	5.1	4.8	4.6	4.3	4.2	4.0	3.9	3.8	3.8	3.7
400 x 45	5.1	4.8	4.6	4.3	4.2	4.0	3.9	3.8 <sub>(45)</sub>	3.8 <sub>(45)</sub>	3.7 <sub>(45)</sub>
400 x 63	5.5	5.2	4.9	4.7	4.6	4.4	4.2	4.1	4.0	4.0
400 x 75	5.8	5.4	5.1	4.9	4.8	4.6	4.4	4.3	4.2	4.1 <sub>(45)</sub>
2/400 x 45	6.0	5.6	5.3	5.1	5.0	4.8	4.7	4.6	4.4	4.3
450 x 63	6.1	5.6	5.3	5.1	5.0	4.8 <sub>(45)</sub>	4.7 <sub>(45)</sub>	4.6 <sub>(45)</sub>	4.4 <sub>(45)</sub>	4.3 <sub>(70)</sub>

- 1 Bearing length to be not less than 35mm unless indicated otherwise by inclusion of a subscript.
- 2 Subscript values indicate the required minimum bearing length in millimetres.
- 3 Multiple sections to be nail laminated in accordance with AS1684.2:2010.
- 4 Lintels to be used in conjunction with top plates, ledgers and head trimmers.
- 5 It is recommended that a clearance of at least 15mm is allowed over non-loadbearing window or door framing.

## LINTELS

IN LOWER STOREY LOAD BEARING EXTERNAL WALLS

WIND CLASSIFICATION N1, N2, N3

Sheet Roof and Ceiling															
e-beam Section D X B (mm)	Floor Load Width 'FLW' (m)														
	1.8					2.4					3.0				
	Roof Load Width 'RLW' (m)														
	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6
Maximum Span (m)															
150 x 35	1.9	1.8	1.7	1.7	1.6	1.8	1.7	1.6	1.6	1.5	1.7	1.6	1.6	1.5	1.5
150 x 45	2.0	1.9	1.8	1.8	1.7	1.9	1.8	1.8	1.7	1.6	1.8	1.7	1.7	1.6	1.6
150 x 75	2.4	2.2	2.2	2.1	2.0	2.2	2.1	2.0	2.0	1.9	2.1	2.0	2.0	1.9	1.9
170 x 35	2.1	2.0	1.9	1.9	1.8	2.0	1.9	1.8	1.8	1.7	1.9	1.8	1.8	1.7	1.7
170 x 45	2.3	2.2	2.1	2.0	1.9	2.1	2.0	2.0	1.9	1.8	2.0	1.9	1.9	1.8	1.8
200 x 35	2.5	2.3	2.2	2.2	2.1	2.3	2.2	2.1	2.1	2.0	2.2	2.1	2.0	2.0	1.9
200 x 45	2.6	2.5	2.4	2.3	2.2	2.5	2.4	2.3	2.2	2.1	2.4	2.3	2.2	2.1	2.1
200 x 63	2.9	2.8	2.7	2.6	2.5	2.8	2.6	2.5	2.5	2.4	2.6	2.5	2.4	2.4	2.3
2/200 x 35	3.1	3.0	2.9	2.8	2.7	3.0	2.8	2.7	2.6	2.6	2.8	2.7	2.6	2.5	2.5
240 x 35	2.9	2.8	2.7	2.6	2.5	2.8	2.6	2.5	2.5	2.4	2.6	2.5	2.4	2.4	2.3
240 x 45	3.1	3.0	2.9	2.8	2.7	3.0	2.8	2.7	2.6	2.6	2.8	2.7	2.6	2.5	2.5
240 x 63	3.4	3.2	3.1	3.0	3.0	3.2	3.1	3.0	2.9	2.8	3.1	3.0	2.9	2.8	2.7
2/240 x 35	3.5	3.4	3.3	3.2	3.1	3.4	3.3	3.2	3.1	3.0	3.2	3.1	3.1	3.0	2.9
2/240 x 45	3.7	3.6	3.5	3.4	3.3	3.5	3.4	3.3	3.2	3.2	3.4	3.3	3.2	3.2	3.1
300 x 45	3.7	3.5	3.4	3.3	3.2	3.5	3.4	3.3	3.2	3.1	3.4	3.3	3.2	3.1	3.0
300 x 63	4.0	3.8	3.7	3.6	3.5	3.8	3.7	3.6	3.5	3.4	3.6	3.5	3.4	3.4	3.3
300 x 75	4.1	4.0	3.9	3.7	3.6	3.9	3.8	3.7	3.6	3.5	3.8	3.7	3.6	3.5	3.4
2/300 x 45	4.3	4.2	4.0	3.9	3.8	4.1	4.0	3.9	3.8	3.7	4.0	3.9	3.8	3.7	3.6
360 x 63	4.5	4.4	4.2	4.1	4.0	4.3	4.2	4.1	4.0	3.9	4.2	4.0	3.9	3.9	3.8
400 x 45	4.5	4.4	4.2	4.1	4.0	4.3	4.2	4.1	4.0	3.9	4.1	4.0	3.9	3.8	3.8 <sub>(45)</sub>
400 x 63	4.9	4.7	4.6	4.4	4.3	4.7	4.5	4.4	4.3	4.2	4.5	4.4	4.3	4.2	4.1
400 x 75	5.1	4.9	4.8	4.6	4.5	4.9	4.7	4.6	4.5	4.4	4.7	4.6	4.4	4.4	4.3
450 x 63	5.3	5.1	5.0	4.8	4.7	5.1	4.9	4.8	4.7	4.6	4.9	4.8	4.7	4.6	4.5

**1** Bearing length to be not less than 35mm unless indicated otherwise by inclusion of a subscript.

**2** Subscript values indicate the required minimum bearing length in millimetres.

**3** Multiple sections to be nail laminated in accordance with AS1684.2:2010.

**4** Lintels to be used in conjunction with top plates, ledgers and head trimmers.

**5** It is recommended that a clearance of at least 15mm is allowed over non-loadbearing window or door framing.

## LINTELS

IN LOWER STOREY LOAD BEARING EXTERNAL WALLS

WIND CLASSIFICATION N1, N2, N3

Tile Roof and Ceiling															
e-beam Section D X B (mm)	Floor Load Width 'FLW' (m)														
	1.8					2.4					3.0				
	Roof Load Width 'RLW' (m)														
	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6
Maximum Span (m)															
150 x 35	1.7	1.6	1.5	1.4	1.3	1.7	1.5	1.4	1.4	1.3	1.6	1.5	1.4	1.3	1.3
150 x 45	1.9	1.7	1.6	1.5	1.4	1.8	1.6	1.5	1.5	1.4	1.7	1.6	1.5	1.4	1.4
150 x 75	2.2	2	1.9	1.8	1.7	2.1	1.9	1.8	1.7	1.6	2.0	1.8	1.7	1.7	1.6
170 x 35	1.9	1.8	1.7	1.6	1.5	1.8	1.7	1.6	1.5	1.5	1.8	1.7	1.6	1.5	1.4
170 x 45	2.1	1.9	1.8	1.7	1.6	2.0	1.8	1.7	1.6	1.6	1.9	1.8	1.7	1.6	1.5
200 x 35	2.3	2.1	1.9	1.8	1.7	2.1	2.0	1.9	1.8	1.7	2.1	1.9	1.8	1.7	1.7
200 x 45	2.4	2.2	2.1	2	1.9	2.3	2.1	2.0	1.9	1.8	2.2	2.1	2.0	1.9	1.8
200 x 63	2.7	2.5	2.3	2.2	2.1	2.6	2.4	2.2	2.1	2.0	2.4	2.3	2.2	2.1	2.0
2/200 x 35	2.9	2.7	2.5	2.4	2.2	2.8	2.6	2.4	2.3	2.2	2.6	2.5	2.3	2.2	2.1
240 x 35	2.7	2.5	2.3	2.2	2.1	2.6	2.4	2.2	2.1	2.0	2.4	2.3	2.2	2.1	2.0
240 x 45	2.9	2.6	2.5	2.3	2.2	2.7	2.5	2.4	2.3	2.2	2.6	2.5	2.3	2.2	2.1
240 x 63	3.1	2.9	2.8	2.6	2.5	3.0	2.8	2.7	2.5	2.4	2.9	2.7	2.6	2.5	2.4
2/240 x 35	3.3	3.1	2.9	2.8	2.6	3.2	3.0	2.8	2.7	2.6	3.1	2.9	2.8	2.6	2.5
2/240 x 45	3.5	3.3	3.1	3	2.8	3.3	3.2	3.0	2.9	2.8	3.2	3.1	3.0	2.8	2.7
300 x 45	3.4	3.2	3.1	2.9	2.8	3.3	3.1	3.0	2.8	2.7	3.2 <sub>(45)</sub>	3.0	2.9	2.8	2.6 <sub>(45)</sub>
300 x 63	3.7	3.5	3.3	3.2	3.1	3.6	3.4	3.2	3.1	3.0	3.5	3.3	3.2	3.1	3.0
300 x 75	3.9	3.6	3.5	3.3	3.2	3.7	3.5	3.4	3.3	3.1	3.6	3.4	3.3	3.2	3.1
2/300 x 45	4.1	3.8	3.6	3.5	3.4	3.9	3.7	3.6	3.4	3.3	3.8	3.6	3.5	3.4	3.3
360 x 63	4.2	4	3.8	3.6	3.5	4.1	3.9	3.7	3.6	3.5 <sub>(45)</sub>	4.0	3.8	3.6	3.5	3.4 <sub>(45)</sub>
400 x 45	4.2	4	3.8	3.6 <sub>(45)</sub>	3.5 <sub>(70)</sub>	4.1	3.9	3.7 <sub>(45)</sub>	3.6 <sub>(70)</sub>	3.4 <sub>(70)</sub>	3.9 <sub>(45)</sub>	3.8 <sub>(45)</sub>	3.6 <sub>(70)</sub>	3.5 <sub>(70)</sub>	3.4 <sub>(70)</sub>
400 x 63	4.6	4.3	4.1	3.9	3.8 <sub>(45)</sub>	4.4	4.2	4.0	3.9	3.7 <sub>(45)</sub>	4.3	4.1	3.9 <sub>(45)</sub>	3.8 <sub>(45)</sub>	3.7 <sub>(45)</sub>
400 x 75	4.8	4.5	4.3	4.1	4	4.6	4.4	4.2	4.0	3.9	4.5	4.3	4.1	3.9	3.8 <sub>(45)</sub>
450 x 63	5	4.7	4.5	4.3 <sub>(45)</sub>	4.1 <sub>(45)</sub>	4.8	4.6	4.4	4.2 <sub>(45)</sub>	4.1 <sub>(70)</sub>	4.7	4.4 <sub>(45)</sub>	4.3 <sub>(45)</sub>	4.1 <sub>(70)</sub>	4.0 <sub>(70)</sub>

**1** Bearing length to be not less than 35mm unless indicated otherwise by inclusion of a subscript.

**2** Subscript values indicate the required minimum bearing length in millimetres.

**3** Multiple sections to be nail laminated in accordance with AS1684.2:2010.

**4** Lintels to be used in conjunction with top plates, ledgers and head trimmers.

**5** It is recommended that a clearance of at least 15mm is allowed over non-loadbearing window or door framing.

## LINTELS

## SUPPORTING TRUNCATED GIRDER TRUSS

## WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	2400 Setback					
	Sheet Roof and Ceiling			Tile Roof and Ceiling		
	Truss Span (m)			Truss Span (m)		
	6.0	7.5	9.0	6.0	7.5	9.0
	Maximum Span (m)					
130 x 35	1.8	1.7	1.6	1.3	1.3	1.2
130 x 45	2.0	1.8	1.7	1.5	1.3	1.3
150 x 35	2.2	2.0	1.8	1.6	1.4	1.3
150 x 45	2.4	2.2	2.0	1.6	1.5	1.4
170 x 35	2.5	2.3	2.2	1.7	1.6	1.5
170 x 45	2.6	2.5	2.4	1.9	1.8	1.6
200 x 45	3.0	2.9	2.8	2.3	2.1	2.0
200 x 63	3.3	3.2	3.0	2.6	2.4	2.3
2/200 x 45	3.7	3.5	3.4	3.0	2.8	2.7
240 x 45	3.5	3.4	3.2	2.8	2.6	2.5
240 x 63	3.8	3.7	3.5	3.1	2.9	2.8
2/240 x 45	4.3	4.0	3.9	3.4	3.3	3.2
300 x 45	4.2	4.0	3.8	3.4	3.2	3.1 <sup>(45)</sup>
300 x 63	4.6	4.4	4.2	3.7	3.6	3.4
300 x 75	4.8	4.6	4.4	3.9	3.7	3.6
2/300 x 45	5.0	4.8	4.7	4.1	3.9	3.8
360 x 63	5.3	5.1	4.9	4.3	4.1	3.9
400 x 63	5.7	5.5	5.3	4.7	4.5	4.3 <sup>(45)</sup>
400 x 75	5.9	5.7	5.5	4.9	4.7	4.5
450 x 63	6.2	6.0	5.8	5.1	4.9	4.7 <sup>(45)</sup>

e-beam Section D X B (mm)	3600 Setback					
	Sheet Roof and Ceiling			Tile Roof and Ceiling		
	Truss Span (m)			Truss Span (m)		
	9.0	10.5	12.0	9.0	10.5	12.0
	Maximum Span (m)					
130 x 35	1.4	1.2	1.0	1.1	0.9 <sup>(45)</sup>	0.8 <sup>(70)</sup>
130 x 45	1.5	1.4	1.3	1.2	1.1	1.0
150 x 35	1.7	1.5 <sup>(70)</sup>	1.3	1.2	1.2 <sup>(45)</sup>	1.0 <sup>(70)</sup>
150 x 45	1.9	1.7 <sup>(45)</sup>	1.6 <sup>(70)</sup>	1.3	1.2	1.2
170 x 35	2.0	1.8 <sup>(70)</sup>	1.6 <sup>(70)</sup>	1.4	1.3	1.1
170 x 45	2.2	2.0	1.9 <sup>(45)</sup>	1.5	1.4	1.3
200 x 45	2.6	2.5	2.4 <sup>(45)</sup>	1.8	1.7 <sup>(45)</sup>	1.6 <sup>(70)</sup>
200 x 63	2.9	2.7	2.6	2.1	2.0	1.8
2/200 x 45	3.3	3.1	3.0	2.5	2.4	2.2
240 x 45	3.1	3.0 <sup>(70)</sup>	2.8 <sup>(70)</sup>	2.3 <sup>(45)</sup>	2.1	2.0 <sup>(45)</sup>
240 x 63	3.4	3.2	3.1 <sup>(45)</sup>	2.6	2.5	2.4 <sup>(45)</sup>
2/240 x 45	3.8	3.6	3.5	3.0	2.9	2.7
300 x 45	3.7	3.6 <sup>(70)</sup>	3.4 <sup>(70)</sup>	3.0 <sup>(70)</sup>	2.8 <sup>(70)</sup>	2.7 <sup>(70)</sup>
300 x 63	4.1	3.9	3.8 <sup>(45)</sup>	3.3	3.1 <sup>(45)</sup>	3.0 <sup>(70)</sup>
300 x 75	4.2	4.1 <sup>(45)</sup>	4.0	3.4	3.3	3.2 <sup>(45)</sup>
2/300 x 45	4.5	4.3	4.2 <sup>(45)</sup>	3.6	3.5	3.3
360 x 63	4.7	4.5 <sup>(45)</sup>	4.4 <sup>(70)</sup>	3.8 <sup>(45)</sup>	3.7 <sup>(70)</sup>	3.5 <sup>(70)</sup>
400 x 63	5.1	4.9 <sup>(45)</sup>	4.8 <sup>(70)</sup>	4.1 <sup>(45)</sup>	4.0 <sup>(70)</sup>	3.9 <sup>(70)</sup>
400 x 75	5.3	5.2	5.0 <sup>(45)</sup>	4.3 <sup>(45)</sup>	4.2 <sup>(45)</sup>	4.0 <sup>(45)</sup>
450 x 63	5.6	5.4 <sup>(70)</sup>	5.3 <sup>(70)</sup>	4.6 <sup>(45)</sup>	4.4 <sup>(70)</sup>	4.3 <sup>(70)</sup>

1 Bearing length to be not less than 35mm unless indicated otherwise by inclusion of a subscript.

2 Subscript values indicate the required minimum bearing length in millimetres.

3 Multiple sections to be nail laminated in accordance with AS1684.2:2010.

4 Lintels to be used in conjunction with top plates, ledgers and head trimmers.

5 It is recommended that a clearance of at least 15mm is allowed over non-loadbearing window or door framing.

6 Maximum rafter or truss spacing – 600mm for tile roofs, 1200mm for sheet roofs.



## LINTELS SUPPORTING STRUTTING BEAMS

### STRUTTING BEAM SUPPORTING UNDERPURLINS AND HANGING BEAMS

WIND CLASSIFICATION N1, N2, N3

e-beam Section D X B (mm)	Maximum Hanging Beam and/or Underpurlin Spans (m)	Sheet Roof and Ceiling					Tile Roof and Ceiling				
		Strutting Beam Span (m)									
		3.6	4.2	4.8	5.4	6.0	3.6	4.2	4.8	5.4	6.0
		Maximum Span (m)									
130 x 35	2.4	2.1	2.0	1.9	1.8	1.7	1.5	1.4	1.4	1.3	1.3
	4.2	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.1
130 x 45	2.4	2.3	2.2	2.1	1.9	1.9	1.6	1.5	1.4	1.4	1.3
	4.2	2.0	1.9	1.8	1.7	1.6	1.4	1.3	1.3	1.2	1.2
150 x 45	2.4	2.6	2.5	2.4	2.3	2.2	1.8	1.7	1.7	1.6	1.5
	4.2	2.4	2.2	2.1	2.0	1.9	1.6	1.5	1.5	1.4	1.3
150 x 63	2.4	2.8	2.8	2.6	2.6	2.5	2.1	2.0	1.9	1.8	1.7
	4.2	2.6	2.5	2.4	2.3	2.2	1.9	1.7	1.6	1.6	1.5
150 x 75	2.4	3.0	2.9	2.8	2.7	2.6	2.2	2.1	2.0	1.9	1.8
	4.2	2.8	2.7	2.6	2.5	2.4	2.0	1.8	1.8	1.7	1.6
170 x 45	2.4	2.9	2.8	2.7	2.6	2.5	2.1	2.0	1.9	1.8	1.7
	4.2	2.7	2.5	2.5	2.4	2.2	1.9	1.7	1.7	1.6	1.5
170 x 63	2.4	3.1	3.0	3.0	2.9	2.8	2.4	2.3	2.2	2.0	2.0
	4.2	3.0	2.8	2.7	2.6	2.5	2.2	2.0	1.9	1.8	1.8
200 x 35	2.4	3.1	3.0	2.9	2.8	2.7	2.4	2.2	2.1	2.0	1.9
	4.2	2.9	2.8	2.7	2.6	2.5	2.1	2.0	1.9	1.8	1.7
200 x 45	2.4	3.3	3.2	3.1	3.0	2.9	2.5	2.4	2.3	2.2	2.1
	4.2	3.1	3.0	2.9	2.8	2.7	2.3	2.1	2.0	1.9	1.8
200 x 63	2.4	3.5	3.5	3.4	3.3	3.2	2.8	2.7	2.6	2.5	2.4
	4.2	3.3	3.3	3.2	3.1	3.0	2.6	2.5	2.3	2.2	2.1
240 x 45	2.4	3.8	3.7	3.6	3.4	3.4	3.0	2.9	2.8	2.7	2.6
	4.2	3.6	3.5	3.4	3.2	3.2	2.8	2.6	2.5	2.4	2.4
240 x 63	2.4	4.1	4.0	3.9	3.8	3.7	3.3	3.2	3.1	3.0	2.9
	4.2	3.9	3.8	3.7	3.5	3.5	3.1	3.0	2.9	2.7	2.7
2/240 x 45	2.4	4.6	4.4	4.3	4.2	4.1	3.7	3.5	3.5	3.4	3.2
	4.2	4.4	4.2	4.1	4.0	3.9	3.5	3.3	3.3	3.2	3.0
300 x 63	2.4	4.9	4.8	4.7	4.6	4.4	3.9	3.8	3.7	3.6	3.6
	4.2	4.7	4.6	4.4	4.3	4.2	3.7	3.6	3.5	3.4	3.3
300 x 75	2.4	5.1	5.0	4.9	4.8	4.7	4.1	4.0	3.9	3.8	3.7
	4.2	4.9	4.8	4.7	4.5	4.4	3.9	3.8	3.7	3.6	3.5
2/300 x 45	2.4	5.4	5.2	5.1	5.0	4.9	4.3	4.2	4.1	4.0	3.9
	4.2	5.2	5.0	4.9	4.8	4.7	4.1	4.0	3.9	3.8	3.7
360 x 63	2.4	5.6 <sub>(45)</sub>	5.4 <sub>(45)</sub>	5.3 <sub>(45)</sub>	5.2 <sub>(45)</sub>	5.1 <sub>(45)</sub>	4.5	4.4	4.3	4.1	4.1
	4.2	5.4 <sub>(45)</sub>	5.2 <sub>(45)</sub>	5.1 <sub>(45)</sub>	5.0 <sub>(70)</sub>	4.9 <sub>(70)</sub>	4.3	4.2 <sub>(45)</sub>	4.1 <sub>(45)</sub>	3.9 <sub>(45)</sub>	3.9 <sub>(45)</sub>
400 x 63	2.4	6.1 <sub>(70)</sub>	5.9 <sub>(70)</sub>	5.8 <sub>(45)</sub>	5.6 <sub>(45)</sub>	5.5 <sub>(45)</sub>	4.9 <sub>(45)</sub>	4.8 <sub>(45)</sub>	4.7 <sub>(45)</sub>	4.5 <sub>(45)</sub>	4.4 <sub>(45)</sub>
	4.2	5.9 <sub>(70)</sub>	5.7 <sub>(70)</sub>	5.6 <sub>(70)</sub>	5.4 <sub>(70)</sub>	5.3 <sub>(70)</sub>	4.7 <sub>(45)</sub>	4.6 <sub>(45)</sub>	4.4 <sub>(45)</sub>	4.3 <sub>(70)</sub>	4.2 <sub>(70)</sub>
400 x 75	2.4	6.3 <sub>(70)</sub>	6.2 <sub>(70)</sub>	6.0 <sub>(70)</sub>	5.9 <sub>(45)</sub>	5.8 <sub>(45)</sub>	5.2	5.0	4.9	4.8 <sub>(45)</sub>	4.6
	4.2	6.1 <sub>(70)</sub>	5.9 <sub>(70)</sub>	5.8 <sub>(45)</sub>	5.6 <sub>(45)</sub>	5.5 <sub>(45)</sub>	5.0 <sub>(45)</sub>	4.8 <sub>(45)</sub>	4.6 <sub>(45)</sub>	4.5 <sub>(45)</sub>	4.4 <sub>(45)</sub>
450 x 63	2.4	6.7 <sub>(70)</sub>	6.5 <sub>(70)</sub>	6.3 <sub>(70)</sub>	6.2 <sub>(70)</sub>	6.1 <sub>(70)</sub>	5.4 <sub>(70)</sub>	5.3 <sub>(70)</sub>	5.1 <sub>(70)</sub>	5.0 <sub>(70)</sub>	4.9 <sub>(70)</sub>
	4.2	6.5 <sub>(70)</sub>	6.2 <sub>(70)</sub>	6.1 <sub>(70)</sub>	5.9 <sub>(70)</sub>	5.8 <sub>(70)</sub>	5.2 <sub>(70)</sub>	5.1 <sub>(70)</sub>	4.9 <sub>(70)</sub>	4.8 <sub>(70)</sub>	4.7 <sub>(70)</sub>

1 Bearing length to be not less than 35mm unless indicated otherwise by inclusion of a subscript.

2 Subscript values indicate the required minimum bearing length in millimetres.

3 Multiple sections to be nail laminated in accordance with AS1684.2:2010.

4 Lintels to be used in conjunction with top plates, ledgers and head trimmers.

5 It is recommended that a clearance of at least 15mm is allowed over non-loadbearing window or door framing.

6 Maximum rafter spacing – 600mm for tile roofs, 1200mm for sheet roofs.

## FLOOR JOISTS

### SUPPORTING FLOOR LOADS ONLY

e-beam Section D X B (mm)	Floor Joist Spacing (mm)									
	300		400		450		480		600	
	Maximum single span and cantilever (m)									
	Span	Cant.	Span	Cant.	Span	Cant.	Span	Cant.	Span	Cant.
90 x 35	2.0	0.4	1.7	0.4	1.6	0.3	1.7	0.3	1.6	0.3
90 x 45	2.2	0.5	1.8	0.4	1.8	0.4	1.8	0.4	1.7	0.3
130 x 35	3.3	0.8	2.6	0.8	2.4	0.7	2.5	0.7	2.3	0.6
130 x 45	3.6	0.9	2.8	0.8	2.7	0.8	2.7	0.8	2.5	0.7
150 x 35	3.8	0.9	3.0	0.9	2.9	0.8	3.0	0.8	2.7	0.8
150 x 45	4.0	1.0	3.3	0.9	3.1	0.9	3.2	0.9	3.0	0.8
170 x 35	4.2	1.1	3.5	1.0	3.3	1.0	3.4	0.9	3.1	0.9
170 x 45	4.4	1.2	3.8	1.1	3.6	1.0	3.8	1.0	3.4	0.9
200 x 35	4.7	1.3	4.3	1.1	4.0	1.1	4.2	1.1	3.8	1.0
200 x 45	5.0	1.4	4.6	1.2	4.4	1.2	4.4	1.2	4.1	1.1
240 x 35	5.4	1.5	5.0	1.4	4.9	1.3	4.8	1.3	4.5	1.2
240 x 45	5.7	1.6	5.3	1.5	5.1	1.4	5.1	1.4	4.8	1.3
300 x 45	6.7	1.9	6.3	1.8	6.1	1.7	6.0	1.7	5.7	1.6
<b>Maximum continuous span and cantilever (m)</b>										
90 x 35	2.6	0.4	2.0	0.4	1.9	0.3	2.0	0.3	1.8	0.3
90 x 45	2.7	0.5	2.3	0.4	2.1	0.4	2.2	0.4	2.0	0.3
130 x 35	3.9	0.8	3.1	0.7	2.9	0.7	3.0	0.7	2.7	0.6
130 x 45	4.2	0.9	3.4	0.8	3.2	0.8	3.3	0.7	3.0	0.7
150 x 35	4.4	0.9	3.8	0.9	3.4	0.8	3.6	0.8	3.2	0.7
150 x 45	4.6	1.0	4.2	0.9	3.8	0.9	4.0	0.9	3.5	0.8
170 x 35	4.8	1.1	4.5	1.0	4.0	0.9	4.3	0.9	3.7	0.8
170 x 45	5.1	1.1	4.8	1.0	4.4	1.0	4.5	1.0	4.0	0.9
200 x 35	5.5	1.3	5.1	1.1	4.9	1.1	4.8	1.1	4.5	1.0
200 x 45	5.8	1.4	5.4	1.2	5.2	1.2	5.1	1.2	4.8	1.1
240 x 35	6.3	1.5	5.8	1.4	5.7	1.3	5.6	1.3	5.3	1.2
240 x 45	6.6	1.6	6.2	1.5	6.0	1.4	5.9	1.4	5.6	1.3
300 x 45	7.8	1.9	7.3	1.8	7.1	1.7	6.9	1.7	6.6	1.6

1 Joists with D/B > 4 should be blocked at supports as per AS1684.2:2010.

2 Cantilever spans should not exceed one half of the installed backspan.

## FLOOR JOISTS

FOR TILED FLOORS OR FLOORS SUPPORTING HEAVY FURNITURE

e-beam Section D X B (mm)	Floor joist spacing (mm)					Floor joist spacing (mm)				
	300	400	450	480	600	300	400	450	480	600
	Maximum single span (m)					Maximum continuous span (m)				
90 x 35	2.1	1.8	1.7	1.8	1.7	2.4	2.0	1.9	2.0	1.8
90 x 45	2.2	2.0	1.9	1.9	1.8	2.6	2.2	2.1	2.2	2.0
130 x 35	2.9	2.6	2.4	2.5	2.3	3.6	3.1	2.9	3.0	2.7
130 x 45	3.1	2.8	2.7	2.6	2.5	3.8	3.4	3.2	3.3	3.0
150 x 35	3.3	3.0	2.9	2.8	2.6	4.1	3.7	3.4	3.5	3.2
150 x 45	3.5	3.2	3.1	3.0	2.8	4.4	4.0	3.8	3.8	3.5
170 x 35	3.7	3.4	3.3	3.2	3.0	4.6	4.2	4.0	4.0	3.7
170 x 45	4.0	3.6	3.5	3.4	3.2	4.8	4.5	4.4	4.3	4.0
200 x 35	4.3	4.0	3.8	3.8	3.5	5.2	4.8	4.7	4.6	4.4
200 x 45	4.6	4.3	4.1	4.0	3.8	5.5	5.1	5.0	4.9	4.6
240 x 35	5.0	4.7	4.6	4.5	4.2	5.9	5.5	5.4	5.3	5.0
240 x 45	5.2	4.9	4.8	4.7	4.5	6.2	5.8	5.7	5.6	5.3
300 x 45	6.1	5.8	5.6	5.6	5.3	7.3	6.9	6.7	6.6	6.3

1 Joists with D/B > 4 should be blocked at supports as per AS1684.2:2010.

2 Tables apply where the imposed load from floor coverings (tiles and mortar) or heavy furniture is between 50 and 100 kilogram per square metre.

## FLOOR JOISTS

### SUPPORTING PARALLEL LOAD BEARING WALLS OVER OPENINGS

Sheet Roof And Ceiling																		
e-beam Section D X B (mm)	Single Span									Continuous Span								
	Roof Load Width 'RLW' (m)																	
	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6
	Maximum Span (m)																	
2/90 x 35	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	2.3	2.2	2.1	2.0	2.0	1.9	1.8	1.8	1.7
2/90 x 45	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.4	1.4	2.5	2.4	2.3	2.2	2.1	2.0	2.0	2.0	1.9
2/130 x 35	2.5	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	3.3	3.2	3.0	2.9	2.8	2.7	2.6	2.6	2.5
2/130 x 45	2.7	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.0	3.6	3.4	3.3	3.1	3.0	2.9	2.8	2.8	2.7
2/150 x 35	2.9	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.2	3.8	3.6	3.5	3.4	3.2	3.1	3.1	3.0	2.9
2/150 x 45	3.1	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3	4.1	3.9	3.7	3.6	3.5	3.4	3.3	3.2	3.1
2/170 x 35	3.2	3.1	2.9	2.8	2.7	2.7	2.6	2.5	2.4	4.3	4.1	3.9	3.8	3.7	3.6	3.5	3.4	3.3
2/170 x 45	3.5	3.3	3.2	3.0	2.9	2.8	2.8	2.7	2.6	4.6	4.4	4.2	4.1	3.9	3.8	3.7	3.6	3.5
2/200 x 35	3.8	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.9	4.9	4.8	4.6	4.5	4.3	4.2	4.1	4.0	3.9
2/200 x 45	4.1	3.9	3.7	3.6	3.4	3.3	3.3	3.2	3.1	5.2	5.0	4.8	4.7	4.6	4.5	4.4	4.2	4.1
2/240 x 45	4.8	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.7	5.9	5.7	5.5	5.4	5.3	5.1	5.0	4.9	4.8
2/300 x 45	5.6	5.4	5.2	5.1	5.0	4.9	4.8	4.7	4.6	7.0	6.7	6.5	6.3	6.2	6.1	5.9	5.8	5.7
2/360 x 45	6.4	6.2	6.0	5.8	5.7	5.6	5.4	5.3	5.2	8.0	7.7	7.4	7.2	7.1	6.9	6.8	6.6	6.5
2/400 x 45	6.9	6.6	6.5	6.3	6.1	6.0	5.9	5.8	5.7	8.6	8.3	8.0	7.8	7.6	7.5	7.3	7.2	7.1

Tile Roof And Ceiling																		
e-beam Section D X B (mm)	Single Span									Continuous Span								
	Roof Load Width 'RLW' (m)																	
	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.6
	Maximum Span (m)																	
2/90 x 35	1.5	1.4	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.4	1.4
2/90 x 45	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.2	1.2	2.1	2.0	1.9	1.8	1.6	1.7	1.6	1.5	1.5
2/130 x 35	2.1	2.0	1.9	1.8	1.7	1.6	1.6	1.5	1.5	2.8	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0
2/130 x 45	2.3	2.1	2.0	1.9	1.8	1.8	1.7	1.7	1.6	3.0	2.8	2.7	2.6	2.5	2.4	2.3	2.2	2.2
2/150 x 35	2.4	2.3	2.2	2.0	2.0	1.9	1.8	1.8	1.7	3.3	3.1	2.9	2.7	2.6	2.5	2.5	2.4	2.3
2/150 x 45	2.6	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.9	3.5	3.3	3.1	3.0	2.8	2.7	2.6	2.6	2.5
2/170 x 35	2.8	2.6	2.4	2.3	2.2	2.1	2.1	2.0	2.0	3.7	3.5	3.3	3.1	3.0	2.9	2.8	2.7	2.6
2/170 x 45	3.0	2.8	2.6	2.5	2.4	2.3	2.2	2.2	2.1	4.0	3.7	3.5	3.3	3.2	3.1	3.0	2.9	2.8
2/200 x 35	3.2	3.0	2.9	2.7	2.6	2.5	2.4	2.4	2.3	4.3	4.1	3.8	3.7	3.5	3.4	3.3	3.2	3.1
2/200 x 45	3.5	3.3	3.1	2.9	2.8	2.7	2.6	2.5	2.5	4.6	4.4	4.1	3.9	3.8	3.6	3.5	3.4	3.3
2/240 x 45	4.2	3.9	3.7	3.5	3.4	3.2	3.1	3.0	3.0	5.3	5.0	4.8	4.7	4.5	4.3	4.2	4.1	4.0
2/300 x 45	5.0	4.8	4.6	4.4	4.2	4.0	3.9	3.8	3.7	6.2	5.9	5.7	5.5	5.3	5.2	5.0	4.9	4.8 <sub>(45)</sub>
2/360 x 45	5.7	5.4	5.2	5.0	4.9	4.8	4.6	4.5	4.4	7.1	6.8	6.5	6.3	6.1	5.9	5.7 <sub>(90)</sub>	5.5 <sub>(90)</sub>	5.3 <sub>(90)</sub>
2/400 x 45	6.2	5.9	5.6	5.4	5.3	5.1	5.0	4.9	4.8	7.7	7.3	6.9	6.7	6.4	6.1 <sub>(90)</sub>	5.9 <sub>(90)</sub>	5.7 <sub>(90)</sub>	5.6 <sub>(90)</sub>

**1** Bearing length to be not less than 30mm at end supports and not less than 65mm at intermediate supports for continuous span joists unless noted otherwise by a subscript.

**2** For single span joists subscript value indicates the required bearing length (in millimetre) for end supports.

**3** For continuous span joists, subscript value indicates the required length (in millimetre) at intermediate supports; the bearing length at end supports should be at least one third the bearing length required at the intermediate support but in any case, is not to be less than 30mm.

## BEARERS

### SUPPORTING FLOOR LOADS ONLY

e-beam Section D X B (mm)	Floor Load Width 'FLW' (m)											
	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.6	4.2	4.8	5.4	6.0
	Maximum single span (m)											
90 x 63	1.8	1.6	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.0
130 x 63	2.6	2.4	2.2	2.1	2.0	1.9	1.9	1.8	1.7	1.6	1.5	1.5
150 x 63	2.9	2.7	2.6	2.4	2.3	2.2	2.2	2.0	1.9	1.8	1.7	1.7
150 x 75	3.1	2.9	2.7	2.6	2.5	2.4	2.3	2.1	2.0	1.9	1.8	1.8
170 x 63	3.3	3.1	2.9	2.8	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9
200 x 63	3.8	3.6	3.4	3.2	3.1	3.0	2.9	2.7	2.5	2.4	2.3	2.2
240 x 63	4.4	4.1	4.0	3.8	3.7	3.6	3.4	3.2	3.1	2.9	2.8	2.7
300 x 63	5.1	4.9	4.7	4.5	4.3	4.2	4.1	3.9	3.8	3.6	3.5 <sub>(70)</sub>	3.3 <sub>(70)</sub>
300 x 75	5.3	5.1	4.9	4.7	4.5	4.4	4.3	4.1	3.9	3.8	3.7	3.5
360 x 63	5.9	5.6	5.3	5.1	5.0	4.8	4.7	4.5	4.3	4.1 <sub>(70)</sub>	4.0 <sub>(70)</sub>	3.9 <sub>(70)</sub>
400 x 63	6.3	6.0	5.8	5.5	5.4	5.2	5.1	4.8	4.6 <sub>(70)</sub>	4.5 <sub>(70)</sub>	4.3 <sub>(70)</sub>	4.2 <sub>(70)</sub>
400 x 75	6.6	6.2	6.0	5.8	5.6	5.4	5.3	5.0	4.8	4.7 <sub>(70)</sub>	4.5 <sub>(70)</sub>	4.4 <sub>(70)</sub>
450 x 63	6.9	6.5	6.3	6.0	5.8	5.7	5.5	5.3 <sub>(70)</sub>	5.1 <sub>(70)</sub>	4.9 <sub>(70)</sub>	4.7 <sub>(70)</sub>	4.6 <sub>(70)</sub>
<b>Maximum continuous span</b>												
90 x 63	2.2	2.0	1.9	1.8	1.7	1.6	1.6	1.5	1.4	1.3	1.3	1.2
130 x 63	3.2	3.0	2.8	2.7	2.5	2.4	2.4	2.2	2.0	1.9	1.7	1.7
150 x 63	3.6	3.4	3.2	3.1	2.9	2.8	2.7	2.6	2.3	2.1	2.0	2.0
150 x 75	3.7	3.5	3.4	3.2	3.1	3.0	2.9	2.7	2.6	2.4	2.2	2.1
170 x 63	3.9	3.7	3.5	3.4	3.3	3.2	3.1	2.9	2.7	2.4	2.3	2.1
200 x 63	4.4	4.2	4.0	3.9	3.7	3.6	3.5	3.4	3.1	2.9	2.7	2.6 <sub>(105)</sub>
240 x 63	5.1	4.8	4.6	4.4	4.3	4.2	4.0	3.9	3.7 <sub>(105)</sub>	3.5 <sub>(140)</sub>	3.3 <sub>(140)</sub>	3.1 <sub>(140)</sub>
300 x 63	6.0	5.7	5.4	5.2	5.1	4.9	4.8	4.6 <sub>(105)</sub>	4.4 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.1 <sub>(140)</sub>	3.9 <sub>(170)</sub>
300 x 75	6.3	5.9	5.7	5.5	5.3	5.1	5.0	4.8	4.6 <sub>(105)</sub>	4.4 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.2 <sub>(140)</sub>
360 x 63	6.9	6.5	6.2	6.0	5.8	5.6 <sub>(105)</sub>	5.5 <sub>(105)</sub>	5.2 <sub>(140)</sub>	5.0 <sub>(140)</sub>	4.9 <sub>(170)</sub>	4.7 <sub>(170)</sub>	4.6 <sub>(170)</sub>
400 x 63	7.5	7.1	6.7	6.5	6.3 <sub>(105)</sub>	6.1 <sub>(105)</sub>	5.9 <sub>(140)</sub>	5.7 <sub>(140)</sub>	5.5 <sub>(170)</sub>	5.3 <sub>(170)</sub>	5.1 <sub>(170)</sub>	4.9 <sub>(170)</sub>
400 x 75	7.8	7.4	7.0	6.8	6.6	6.4	6.2 <sub>(105)</sub>	5.9 <sub>(140)</sub>	5.7 <sub>(140)</sub>	5.5 <sub>(140)</sub>	5.3 <sub>(170)</sub>	5.2 <sub>(170)</sub>
450 x 63	8.1	7.7	7.4	7.1 <sub>(105)</sub>	6.9 <sub>(105)</sub>	6.7 <sub>(140)</sub>	6.5 <sub>(140)</sub>	6.2 <sub>(140)</sub>	6.0 <sub>(170)</sub>	5.8 <sub>(170)</sub>	5.6 <sub>(170)</sub>	5.3 <sub>(170)</sub>

1 Sections with depth 200mm or greater must be restrained against rollover at supports.

2 Bearing length to be not less than 45mm at end supports or 90mm at intermediate supports for continuous span except where otherwise indicated by a subscript to the maximum span.

3 For single span bearers the subscript value indicates the required bearing length at end supports.

4 For continuous span, the subscript value indicates the minimum bearing length required at intermediate supports; the bearing length at end supports must be at least one third of the bearing length indicated for the intermediate support but not less than 45mm.

**BEARERS**SUPPORTING SINGLE OR UPPER  
STOREY LOAD BEARING WALLS

WIND CLASSIFICATION N1, N2, N3

Sheet Roof And Ceiling															
e-beam Section D X B (mm)	Floor Load Width 'FLW' (m)														
	1.2					2.1					3.0				
	Roof Load Width 'RLW' (m)														
	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6
<b>Maximum single span (m)</b>															
90 x 63	1.4	1.3	1.3	1.2	1.2	1.3	1.2	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.0
130 x 63	2.0	1.9	1.8	1.7	1.7	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.5	1.5
150 x 63	2.4	2.2	2.1	2.0	1.9	2.1	2.0	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.7
150 x 75	2.5	2.3	2.2	2.1	2.0	2.2	2.1	2.0	2.0	1.9	2.1	2.0	1.9	1.9	1.8
170 x 63	2.7	2.5	2.4	2.3	2.2	2.4	2.3	2.2	2.1	2.0	2.2	2.1	2.0	2.0	1.9
200 x 63	3.1	2.9	2.8	2.7	2.6	2.8	2.7	2.6	2.5	2.4	2.6	2.5	2.4	2.3	2.3
240 x 63	3.7	3.5	3.3	3.2	3.1	3.4	3.2	3.1	3.0	2.9	3.1	3.0	2.9	2.8	2.7
300 x 63	4.4	4.2	4.0	3.9	3.8	4.0	3.9	3.8	3.7	3.6	3.8	3.7	3.6	3.5	3.4
300 x 75	4.6	4.4	4.2	4.0	3.9	4.2	4.1	3.9	3.8	3.8	4.0	3.8	3.8	3.7	3.6
360 x 63	5.0	4.8	4.6	4.4	4.3	4.6	4.5	4.3	4.2	4.1	4.3	4.2	4.1	4.0	4.0
400 x 63	5.4	5.2	5.0	4.8	4.7	5.0	4.8	4.7	4.6	4.5	4.7	4.6	4.5	4.4	4.3
400 x 75	5.6	5.4	5.2	5.0	4.9	5.2	5.0	4.9	4.8	4.6	4.9	4.8	4.7	4.5	4.5
450 x 63	5.9	5.6	5.4	5.2	5.1	5.4	5.3	5.1	5.0	4.9	5.1	5.0	4.9	4.8	4.7 <sub>(70)</sub>
<b>Maximum continuous span (m)</b>															
90 x 63	1.9	1.8	1.7	1.6	1.6	1.7	1.7	1.6	1.6	1.5	1.6	1.5	1.5	1.4	1.4
130 x 63	2.7	2.6	2.4	2.3	2.2	2.5	2.3	2.2	2.2	2.1	2.3	2.2	2.1	2.0	2.0
150 x 63	3.2	3.0	2.8	2.7	2.6	2.8	2.7	2.6	2.5	2.4	2.6	2.5	2.4	2.4	2.3
150 x 75	3.3	3.1	3.0	2.8	2.7	3.0	2.9	2.7	2.6	2.6	2.8	2.7	2.6	2.5	2.4
170 x 63	3.6	3.4	3.2	3.0	2.9	3.2	3.1	2.9	2.8	2.7	2.9	2.8	2.7	2.7	2.6
200 x 63	4.0	3.9	3.7	3.6	3.4	3.7	3.6	3.4	3.3	3.2	3.5	3.3	3.2	3.1	3.0
240 x 63	4.6	4.4	4.2	4.1	4.0	4.3	4.1	4.0	3.9	3.8	4.0	3.9	3.8	3.7 <sub>(105)</sub>	3.6 <sub>(105)</sub>
300 x 63	5.4	5.2	5.0	4.8	4.7	5.0	4.9	4.7	4.6	4.5 <sub>(105)</sub>	4.7 <sub>(105)</sub>	4.6 <sub>(140)</sub>	4.5 <sub>(140)</sub>	4.4 <sub>(140)</sub>	4.3 <sub>(140)</sub>
300 x 75	5.7	5.4	5.2	5.0	4.9	5.2	5.1	4.9	4.8	4.7	4.9	4.8	4.7 <sub>(105)</sub>	4.6 <sub>(105)</sub>	4.5 <sub>(105)</sub>
360 x 63	6.2	5.9	5.7	5.5	5.4	5.8	5.6 <sub>(105)</sub>	5.4 <sub>(105)</sub>	5.3 <sub>(140)</sub>	5.1 <sub>(140)</sub>	5.4 <sub>(140)</sub>	5.3 <sub>(140)</sub>	5.1 <sub>(140)</sub>	5.0 <sub>(140)</sub>	4.9 <sub>(140)</sub>
400 x 63	6.7	6.4	6.2	6.0	5.8 <sub>(105)</sub>	6.2 <sub>(105)</sub>	6.0 <sub>(140)</sub>	5.8 <sub>(140)</sub>	5.7 <sub>(140)</sub>	5.5 <sub>(140)</sub>	5.8 <sub>(140)</sub>	5.7 <sub>(140)</sub>	5.6 <sub>(140)</sub>	5.4 <sub>(140)</sub>	5.3 <sub>(170)</sub>
400 x 75	7.0	6.7	6.4	6.2	6.1	6.5	6.3	6.1 <sub>(105)</sub>	5.9 <sub>(105)</sub>	5.8 <sub>(105)</sub>	6.1 <sub>(140)</sub>	5.9 <sub>(140)</sub>	5.8 <sub>(140)</sub>	5.7 <sub>(140)</sub>	5.6 <sub>(140)</sub>
450 x 63	7.3	7.0	6.7	6.5 <sub>(105)</sub>	6.3 <sub>(140)</sub>	6.8 <sub>(140)</sub>	6.6 <sub>(140)</sub>	6.4 <sub>(140)</sub>	6.2 <sub>(140)</sub>	6.1 <sub>(140)</sub>	6.4 <sub>(170)</sub>	6.2 <sub>(170)</sub>	6.1 <sub>(170)</sub>	5.9 <sub>(170)</sub>	5.8 <sub>(170)</sub>

1 Sections with depth 200mm or greater must be restrained against rollover at supports.

2 Bearing length to be not less than 45mm at end supports or 90mm at intermediate supports for continuous span except where otherwise indicated by a subscript to the maximum span.

3 For single span bearers the subscript value indicates the required bearing length at end supports.

4 For continuous span, the subscript value indicates the minimum bearing length required at intermediate supports; the bearing length at end supports must be at least one third of the bearing length indicated for the intermediate support but not less than 45mm.



**BEARERS**SUPPORTING SINGLE OR UPPER  
STOREY LOAD BEARING WALLS

## WIND CLASSIFICATION N1, N2, N3

Tile Roof And Ceiling															
e-beam Section D X B (mm)	Floor Load Width 'FLW' (m)														
	1.2					2.1					3.0				
	Roof Load Width 'RLW' (m)														
	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6	1.8	3.0	4.2	5.4	6.6
<b>Maximum single span (m)</b>															
90 x 63	1.3	1.2	1.1	1.0	1.0	1.2	1.1	1.0	1.0	0.9	1.0	1.0	1.0	0.9	0.9
130 x 63	1.8	1.7	1.5	1.4	1.4	1.7	1.6	1.5	1.4	1.3	1.6	1.5	1.4	1.3	1.3
150 x 63	2.1	1.9	1.8	1.7	1.6	1.9	1.8	1.7	1.6	1.5	1.8	1.7	1.6	1.5	1.5
150 x 75	2.2	2.0	1.9	1.8	1.7	2.1	1.9	1.8	1.7	1.6	1.9	1.8	1.7	1.6	1.6
170 x 63	2.4	2.2	2.0	1.9	1.8	2.2	2.0	1.9	1.8	1.7	2.1	1.9	1.8	1.7	1.7
200 x 63	2.8	2.5	2.4	2.2	2.1	2.6	2.4	2.2	2.1	2.0	2.4	2.3	2.1	2.0	2.0
240 x 63	3.4	3.1	2.8	2.7	2.5	3.1	2.9	2.7	2.6	2.4	2.9	2.7	2.6	2.5	2.4
300 x 63	4.0	3.8	3.5	3.3	3.2	3.8	3.6	3.4	3.2	3.0	3.6	3.4	3.2	3.1	2.9
300 x 75	4.2	3.9	3.7	3.5	3.3	4.0	3.7	3.6	3.4	3.2	3.8	3.6	3.4	3.2	3.1
360 x 63	4.6	4.3	4.1	3.9	3.7	4.3	4.1	3.9	3.8	3.6	4.1	3.9	3.8	3.7	3.5
400 x 63	5.0	4.6	4.4	4.2	4.0	4.7	4.4	4.2	4.1	3.9 <sub>(70)</sub>	4.5	4.3	4.1	4.0	3.8 <sub>(70)</sub>
400 x 75	5.2	4.8	4.6	4.4	4.2	4.9	4.6	4.4	4.2	4.1	4.7	4.4	4.3	4.1	4.0
450 x 63	5.4	5.1	4.8	4.6	4.4 <sub>(70)</sub>	5.1	4.8	4.6	4.4 <sub>(70)</sub>	4.3 <sub>(70)</sub>	4.9 <sub>(70)</sub>	4.7 <sub>(70)</sub>	4.5 <sub>(70)</sub>	4.3 <sub>(70)</sub>	4.2 <sub>(70)</sub>
<b>Maximum continuous span (m)</b>															
90 x 63	1.7	1.6	1.4	1.4	1.3	1.6	1.5	1.4	1.3	1.2	1.5	1.4	1.3	1.2	1.2
130 x 63	2.5	2.2	2.1	1.9	1.8	2.3	2.1	2.0	1.9	1.8	2.1	2.0	1.9	1.8	1.6
150 x 63	2.8	2.6	2.4	2.2	2.1	2.6	2.4	2.3	2.1	2.0	2.4	2.3	2.2	2.1	1.9
150 x 75	3.0	2.7	2.5	2.4	2.3	2.8	2.6	2.4	2.3	2.2	2.6	2.4	2.3	2.2	2.1
170 x 63	3.2	2.9	2.7	2.5	2.4	2.9	2.7	2.6	2.4	2.3	2.8	2.6	2.4	2.3	2.1
200 x 63	3.7	3.4	3.2	3.0	2.8	3.5	3.2	3.0	2.9	2.7	3.2	3.0	2.9	2.7	2.5 <sub>(105)</sub>
240 x 63	4.3	4.0	3.7	3.6	3.4 <sub>(105)</sub>	4.0	3.8	3.6	3.4 <sub>(105)</sub>	3.3 <sub>(140)</sub>	3.8	3.6 <sub>(105)</sub>	3.4 <sub>(105)</sub>	3.3 <sub>(140)</sub>	3.1 <sub>(140)</sub>
300 x 63	5.0	4.7	4.4	4.2 <sub>(105)</sub>	4.1 <sub>(140)</sub>	4.7	4.5 <sub>(105)</sub>	4.3 <sub>(105)</sub>	4.1 <sub>(140)</sub>	4.0 <sub>(140)</sub>	4.5 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.1 <sub>(140)</sub>	4.0 <sub>(140)</sub>	3.9 <sub>(140)</sub>
300 x 75	5.2	4.9	4.6	4.4	4.2 <sub>(105)</sub>	4.9	4.7	4.4	4.3 <sub>(105)</sub>	4.1 <sub>(140)</sub>	4.7 <sub>(105)</sub>	4.5 <sub>(105)</sub>	4.3 <sub>(140)</sub>	4.2 <sub>(140)</sub>	4.0 <sub>(140)</sub>
360 x 63	5.7	5.4	5.1 <sub>(105)</sub>	4.8 <sub>(140)</sub>	4.7 <sub>(140)</sub>	5.4 <sub>(105)</sub>	5.1 <sub>(140)</sub>	4.9 <sub>(140)</sub>	4.7 <sub>(140)</sub>	4.5 <sub>(170)</sub>	5.2 <sub>(140)</sub>	4.9 <sub>(140)</sub>	4.7 <sub>(170)</sub>	4.6 <sub>(170)</sub>	4.4 <sub>(170)</sub>
400 x 63	6.2	5.8 <sub>(105)</sub>	5.5 <sub>(140)</sub>	5.2 <sub>(140)</sub>	5.0 <sub>(170)</sub>	5.9 <sub>(140)</sub>	5.5 <sub>(140)</sub>	5.3 <sub>(140)</sub>	5.1 <sub>(170)</sub>	4.9 <sub>(170)</sub>	5.6 <sub>(140)</sub>	5.3 <sub>(170)</sub>	5.1 <sub>(170)</sub>	4.9 <sub>(170)</sub>	4.8 <sub>(170)</sub>
400 x 75	6.5	6.0	5.7 <sub>(105)</sub>	5.5 <sub>(140)</sub>	5.3 <sub>(140)</sub>	6.1 <sub>(105)</sub>	5.8 <sub>(105)</sub>	5.5 <sub>(140)</sub>	5.3 <sub>(140)</sub>	5.1 <sub>(140)</sub>	5.8 <sub>(140)</sub>	5.5 <sub>(140)</sub>	5.3 <sub>(140)</sub>	5.1 <sub>(170)</sub>	5.0 <sub>(170)</sub>
450 x 63	6.8	6.3 <sub>(140)</sub>	6.0 <sub>(140)</sub>	5.7 <sub>(170)</sub>	5.5 <sub>(170)</sub>	6.4 <sub>(140)</sub>	6.0 <sub>(170)</sub>	5.8 <sub>(170)</sub>	5.5 <sub>(170)</sub>	5.4 <sub>(170)</sub>	6.1 <sub>(170)</sub>	5.8 <sub>(170)</sub>	5.6 <sub>(170)</sub>	5.4 <sub>(170)</sub>	5.1 <sub>(170)</sub>

1 Sections with depth 200mm or greater must be restrained against rollover at supports.

2 Bearing length to be not less than 45mm at end supports or 90mm at intermediate supports for continuous span except where otherwise indicated by a subscript to the maximum span.

3 For single span bearers the subscript value indicates the required bearing length at end supports.

4 For continuous span, the subscript value indicates the minimum bearing length required at intermediate supports; the bearing length at end supports must be at least one third of the bearing length indicated for the intermediate support but not less than 45mm.

## BEARERS

SUPPORTING TWO STOREY LOAD BEARING WALLS

WIND CLASSIFICATION N1, N2, N3

Sheet Roof and Ceiling												
Ground Floor Load Width 'FLW' (m)												
e-beam Section D X B (mm)	1.5						3.0					
	First Floor Load Width 'FLW' (m)											
	1.5			3.0			1.5			3.0		
	Roof Load Width 'FLW' (m)											
	2.4	4.5	6.6	2.4	4.5	6.6	2.4	4.5	6.6	2.4	4.5	6.6
<b>Maximum single span (m)</b>												
90 x 63	1.1	1.1	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	0.9	0.9
2/90 x 45	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
130 x 63	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.4	1.4	1.4	1.3	1.3
2/130 x 45	1.8	1.7	1.6	1.7	1.6	1.5	1.7	1.6	1.5	1.5	1.5	1.4
150 x 63	1.9	1.8	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.5	1.5
150 x 75	2.0	1.9	1.8	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.6	1.6
2/150 x 45	2.1	2.0	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.7	1.7
170 x 63	2.1	2.0	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.7	1.7
2/170 x 45	2.4	2.2	2.1	2.2	2.1	2.0	2.2	2.1	2.0	2.0	1.9	1.9
200 x 63	2.5	2.3	2.2	2.3	2.2	2.1	2.3	2.2	2.1	2.1	2.0	2.0
2/200 x 45	2.8	2.6	2.5	2.5	2.4	2.3	2.5	2.4	2.3	2.4	2.3	2.2
240 x 63	3.0	2.8	2.7	2.7	2.6	2.5	2.7	2.6	2.5	2.5	2.4	2.4
2/240 x 45	3.3	3.2	3.0	3.0	2.9	2.8	3.0	2.9	2.8	2.8	2.7	2.6
300 x 63	3.7	3.5	3.3	3.4	3.2	3.1	3.4	3.2	3.1	3.1	3.0	2.9
300 x 75	3.8	3.7	3.5	3.6	3.4	3.3	3.6	3.4	3.3	3.3	3.2	3.1
<b>Maximum continuous span (m)</b>												
90 x 63	1.5	1.4	1.4	1.4	1.3	1.3	1.4	1.3	1.3	1.2	1.2	1.2
2/90 x 45	1.7	1.6	1.5	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.3
130 x 63	2.2	2.0	2.0	2.0	1.9	1.8	2.0	1.9	1.8	1.7	1.7	1.6
2/130 x 45	2.4	2.3	2.2	2.2	2.1	2.0	2.2	2.1	2.0	2.1	2.0	1.9
150 x 63	2.5	2.4	2.3	2.3	2.2	2.1	2.3	2.2	2.1	2.0	1.9	1.9
150 x 75	2.6	2.5	2.4	2.4	2.3	2.2	2.4	2.3	2.2	2.2	2.2	2.1
2/150 x 45	2.8	2.7	2.5	2.6	2.4	2.4	2.6	2.4	2.4	2.4	2.3	2.2
170 x 63	2.8	2.7	2.6	2.6	2.5	2.4	2.6	2.5	2.4	2.3	2.2	2.1
2/170 x 45	3.2	3.0	2.9	2.9	2.8	2.7	2.9	2.8	2.7	2.7	2.6	2.5
200 x 63	3.3	3.1	3.0	3.0	2.9	2.8	3.0	2.9	2.8	2.7	2.6 <sub>(105)</sub>	2.5 <sub>(105)</sub>
2/200 x 45	3.7	3.5	3.4	3.4	3.3	3.1	3.4	3.3	3.1	3.2	3.1	3.0
240 x 63	3.9	3.7	3.6	3.6	3.5 <sub>(105)</sub>	3.3 <sub>(105)</sub>	3.6 <sub>(105)</sub>	3.5 <sub>(140)</sub>	3.3 <sub>(140)</sub>	3.3 <sub>(140)</sub>	3.2 <sub>(140)</sub>	3.1 <sub>(140)</sub>
2/240 x 45	4.2	4.1	3.9	4.0	3.8	3.7	4.0	3.8	3.7	3.7	3.6	3.5 <sub>(105)</sub>
300 x 63	4.6	4.4 <sub>(105)</sub>	4.2 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.1 <sub>(140)</sub>	4.0 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.1 <sub>(140)</sub>	4.0 <sub>(140)</sub>	4.0 <sub>(140)</sub>	3.9 <sub>(170)</sub>	3.9 <sub>(170)</sub>
300 x 75	4.8	4.6	4.4	4.5 <sub>(105)</sub>	4.3 <sub>(105)</sub>	4.2 <sub>(140)</sub>	4.5 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.2 <sub>(140)</sub>	4.2 <sub>(140)</sub>	4.1 <sub>(140)</sub>	4.0 <sub>(140)</sub>

1 Sections with depth more than three times overall breadth must be restrained against rollover at supports.

2 Bearing length to be not less than 45mm at end supports or 90mm at intermediate supports for continuous span except where otherwise indicated by a subscript to the maximum span.

3 For single span bearers the subscript value indicates the required bearing length at end supports.

4 For continuous span, the subscript value indicates the minimum bearing length required at intermediate supports; the bearing length at end supports must be at least one third of the bearing length indicated for the intermediate support but not less than 45mm.

## BEARERS

SUPPORTING TWO STOREY LOAD BEARING WALLS

WIND CLASSIFICATION N1, N2, N3

Tile Roof and Ceiling												
Ground Floor Load Width 'FLW' (m)												
e-beam Section D X B (mm)	1.5						3.0					
	First Floor Load Width 'FLW' (m)											
	1.5			3.0			1.5			3.0		
	Roof Load Width 'FLW' (m)											
Roof Load Width 'FLW' (m)												
2.4												
4.5												
6.6												
2.4												
4.5												
6.6												
2.4												
4.5												
6.6												
Maximum single span (m)												
90 x 63	1.0 <sub>(70)</sub>	0.9	0.9	1.0	0.9	0.8	1.0	0.9	0.8	0.9	0.8	0.8
2/90 x 45	1.2	1.1	1.0	1.1	1.0	0.9	1.1	1.0	0.9	1.0	1.0	0.9
130 x 63	1.5	1.4	1.3	1.4	1.3	1.2	1.4	1.3	1.2	1.3	1.2	1.2
2/130 x 45	1.7	1.5	1.4	1.6	1.4	1.4	1.6	1.4	1.4	1.5	1.4	1.3
150 x 63	1.7	1.6	1.5	1.6	1.5	1.4	1.6	1.5	1.4	1.5	1.4	1.3
150 x 75	1.8	1.7	1.5	1.7	1.6	1.5	1.7	1.6	1.5	1.6	1.5	1.4
2/150 x 45	1.9	1.8	1.6	1.8	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.5
170 x 63	2.0	1.8	1.7	1.8	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.5
2/170 x 45	2.2	2.0	1.9	2.0	1.9	1.8	2.0	1.9	1.8	1.9	1.8	1.7
200 x 63	2.3	2.1	1.9	2.1	2.0	1.9	2.1	2.0	1.9	2.0	1.9	1.8
2/200 x 45	2.6	2.4	2.2	2.4	2.2	2.1	2.4	2.2	2.1	2.2	2.1	2.0
240 x 63	2.8	2.5	2.3	2.6	2.4	2.2	2.6	2.4	2.2	2.4	2.2	2.1
2/240 x 45	3.1	2.8	2.6	2.9	2.7	2.5	2.9	2.7	2.5	2.7	2.5	2.4
300 x 63	3.4	3.1	2.9	3.2	3.0	2.8 <sub>(70)</sub>	3.2	3.0	2.8 <sub>(70)</sub>	3.0	2.8 <sub>(70)</sub>	2.7 <sub>(70)</sub>
300 x 75	3.6	3.3	3.1	3.4	3.1	2.9	3.4	3.1	2.9	3.2	3.0	2.8
Maximum continuous span (m)												
90 x 63	1.4	1.3	1.1	1.3	1.2	1.1	1.3	1.2	1.1	1.2	1.1	1.0
2/90 x 45	1.6	1.4	1.3	1.4	1.3	1.3	1.4	1.3	1.3	1.4	1.3	1.2
130 x 63	2.0	1.8	1.6	1.9	1.6	1.5	1.9	1.6	1.5	1.6	1.5	1.4
2/130 x 45	2.3	2.1	1.9	2.1	1.9	1.8	2.1	1.9	1.8	2.0	1.8	1.7
150 x 63	2.3	2.1	1.9	2.1	1.9	1.8	2.1	1.9	1.8	1.9	1.8	1.6
150 x 75	2.4	2.2	2.1	2.3	2.1	1.9	2.3	2.1	1.9	2.1	1.9	1.8
2/150 x 45	2.6	2.4	2.2	2.4	2.2	2.1	2.4	2.2	2.1	2.3	2.1	2.0
170 x 63	2.6	2.4	2.1	2.4	2.1	2.0	2.4	2.1	2.0	2.2	2.0	1.8 <sub>(105)</sub>
2/170 x 45	2.9	2.7	2.5	2.7	2.5	2.4	2.7	2.5	2.4	2.6	2.4	2.3
200 x 63	3.1	2.8	2.5 <sub>(105)</sub>	2.9	2.5 <sub>(105)</sub>	2.4 <sub>(140)</sub>	2.9	2.5 <sub>(105)</sub>	2.4 <sub>(140)</sub>	2.6 <sub>(105)</sub>	2.4 <sub>(105)</sub>	2.1 <sub>(140)</sub>
2/200 x 45	3.5	3.2	2.9	3.2	3.0	2.8	3.2	3.0	2.8	3.0	2.8	2.7
240 x 63	3.7	3.4 <sub>(105)</sub>	3.0 <sub>(140)</sub>	3.4 <sub>(105)</sub>	3.1 <sub>(140)</sub>	2.8 <sub>(140)</sub>	3.4 <sub>(105)</sub>	3.1 <sub>(140)</sub>	2.8 <sub>(140)</sub>	3.1 <sub>(140)</sub>	2.9 <sub>(140)</sub>	2.6 <sub>(140)</sub>
2/240 x 45	4.0	3.7	3.5	3.8	3.6	3.4 <sub>(105)</sub>	3.8	3.6	3.4 <sub>(105)</sub>	3.6 <sub>(105)</sub>	3.4 <sub>(105)</sub>	3.1 <sub>(140)</sub>
300 x 63	4.3 <sub>(105)</sub>	4.0 <sub>(140)</sub>	3.8 <sub>(170)</sub>	4.1 <sub>(140)</sub>	3.9 <sub>(170)</sub>	3.5 <sub>(170)</sub>	4.1 <sub>(140)</sub>	3.9 <sub>(170)</sub>	3.5 <sub>(170)</sub>	3.9 <sub>(170)</sub>	3.6 <sub>(170)</sub>	3.2 <sub>(170)</sub>
300 x 75	4.5	4.2 <sub>(140)</sub>	4.0 <sub>(140)</sub>	4.3 <sub>(140)</sub>	4.0 <sub>(140)</sub>	3.9 <sub>(170)</sub>	4.3 <sub>(140)</sub>	4.0 <sub>(140)</sub>	3.9 <sub>(170)</sub>	4.1 <sub>(140)</sub>	3.9 <sub>(140)</sub>	3.6 <sub>(170)</sub>

1 Sections with depth more than three times overall breadth must be restrained against rollover at supports.

2 Bearing length to be not less than 45mm at end supports or 90mm at intermediate supports for continuous span except where otherwise indicated by a subscript to the maximum span.

3 For single span bearers the subscript value indicates the required bearing length at end supports.

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## NOTES

## NOTES

# SPECIFICATIONS

## Manufacture

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Manufactured in accordance with AS/NZS 4357

## Veneer

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Thickness Constant through the product thickness  
Species Sustainably sourced timber  
Joints Outer 2 plies are scarf jointed  
Inner plies – scarf and/or butt jointed

## Moisture Content

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8% – 15% (at time of dispatch)

## Dimensional Tolerances

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Available on request

## Straightness

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Available on request

## Density

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650 kg/m<sup>3</sup> (approximately)

## Adhesive

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Phenolic – AS2754.1:2016 - Adhesives for timber and timber products; Adhesives for manufacture of plywood and laminated veneer lumber (LVL)

## Bond

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Type A – AS/NZS2098.2:2012 - Methods of tests for veneer and plywood; Bond quality of plywood (chisel test)

## Joint Group

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JD3 – for nails, bolts and screws

## Finish

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Unsanded faces, sawn edges and arrised edges

## Branding

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Each piece of Wesbeam LVL is branded at least once with the product name for identification and evidence of compliance with manufacturing control standards

## Storage

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Store on level bearers at maximum 1800mm centres well clear of the ground, and cover to keep dry but allow ventilation

## Source

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Sustainably sourced timber certified to AS4707:2014 - Chain of custody for forest products / PEFC

## Treatment Condition

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Untreated – but can be specified to e2S, H2 and H3 Treatment levels as per AS/NZS1604.4:2004 - Specifications for preservative treatment; Laminated veneer lumber (LVL)

\* e2S is a CodeMark® certified glue-line termite treatment.



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