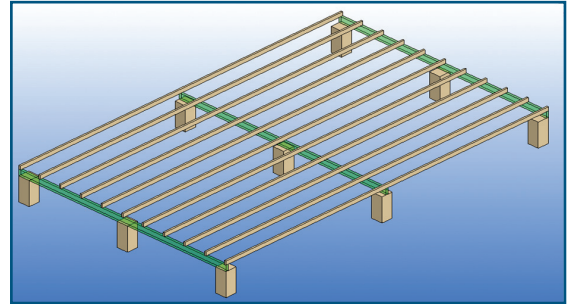




**SOLIDSTART™**  
ENGINEERED WOOD PRODUCTS



**LP SolidStart LVL E14 (F17) offers structural properties equivalent to or better than hardwood F17 at competitive prices. It is engineered to maximize the efficient use of material and time.**



**FEATURES**

- Engineered for straightness and consistent performance
- Higher load capacity than E13 LVL
- Available in lengths up to 12.0 m and a full range of section sizes
- Competitively priced compared to F17 hardwood
- Wax SiteCote™ available on 4 or 6 sides to provide added water resistance
- LP’s procurement processes are certified to ensure forest sustainability, while hardwoods harvested from tropical forests may not be

AVAILABLE IN						
35mm		45mm			63mm	
70x35	240x35	70x45	170x45	300x45	90x63	241x63
90x35	290x35	90x45	190x45	302x45	95x63	300x63
120x35		95x45	200x45	356x45	130x63	302x63
140x35		120x45	220x45	360x45	150x63	356x63
170x35		130x45	240x45	400x45	170x63	360x63
190x35		140x45	241x45	406x45	200x63	400x63
220x35		150x45	290x45	457x45	240x63	406x63

AUSTRALIAN CHARACTERISTIC STRUCTURAL PROPERTIES OF LP LVL FOR GRADE E14 - AS1720.1-2010												
Grade	Edge					Flat					Axial	
	$f_b^1$	$f_s$	$f_{c,perp}$	E	G	$f_b^3$	$f_s$	$f_{c,perp}$	E	G	$f_c$	$f_t^2$
	MPa	MPa	MPa	GPa	MPa	MPa	MPa	MPa	GPa	MPa	MPa	MPa
<b>E14</b>	42.0	5.3	12.0	14.0	700	42.0	3.2	7.4	13.7	685	42.0	25.0

**NOTES:**

1. The edge bending strength shown is normalised for 300mm deep section. For other depths, adjust the bending strength by multiplying by the size factor  $(300/d)^{0.143}$  (not to exceed 1.19), where d = depth of section considered
2. The tension strength shown is normalised for 150mm deep section. For deeper sections, adjust the tension strength by multiplying by the size factor  $(150/d)^{0.167}$ , where d = depth of the section considered.
3. The flat bending strength shown is normalised to the standard LVL section widths. Flatwise bending strength does not need to be adjusted for size factor.

**PROUDLY DISTRIBUTED BY:**



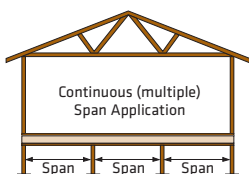
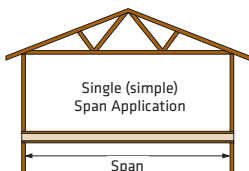
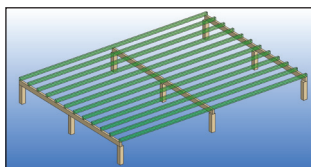


# SOLIDSTART™

ENGINEERED WOOD PRODUCTS

**TO USE:**

1. Determine span condition as either single or continuous and select the appropriate table.
2. If span is continuous, verify that it meets the continuous span criteria listed in the General Notes below.
3. Select joist centres.
4. Scan down the column until you meet or exceed the span of your application.
5. Select the LP SolidStart LVL depth and width.



**E14 (F17) LVL FLOOR JOISTS - RESIDENTIAL TIMBER FLOOR TOTAL DEAD LOAD 40 kg/m<sup>2</sup>**

Member	Depth	Width	Joist Spacing (mm)				Joist Spacing (mm)				
			300	400	450	480	300	400	450	480	600
			Max. SINGLE Joist Span (m)				Max. CONTINUOUS Joist Span (m)				
90	35	2.0	1.7	1.6	1.6	1.5	2.7	2.0	1.9	1.9	1.8
	45	2.2	1.8	1.8	1.8	1.7	2.9	2.2	2.1	2.1	2.0
120	35	3.0	2.3	2.2	2.2	2.1	3.5	2.8	2.7	2.6	2.5
	45	3.2	2.6	2.5	2.4	2.3	3.7	3.2	2.9	2.9	2.8
130	45	3.5	2.8	2.7	2.7	2.6	4.0	3.5	3.2	3.2	3.0
140	35	3.5	2.8	2.7	2.6	2.5	3.9	3.5	3.2	3.1	3.0
	45	3.7	3.1	2.9	2.9	2.8	4.2	3.9	3.5	3.5	3.3
150	45	4.4	3.9	3.7	3.6	3.5	4.4	4.1	3.8	3.8	3.6
170	45	4.0	3.4	3.2	3.1	3.0	4.9	4.5	4.4	4.3	4.1
190	35	4.5	4.1	3.8	3.7	3.6	5.0	4.6	4.5	4.4	4.2
	45	4.8	4.5	4.2	4.1	3.9	5.3	4.9	4.8	4.7	4.4
200	45	5.0	4.7	4.5	4.4	4.2	5.5	5.1	5.0	4.9	4.6
240	35	5.4	5.0	4.9	4.8	4.5	5.9	5.5	5.3	5.3	5.0
	45	5.8	5.4	5.2	5.1	4.8	6.3	5.9	5.7	5.6	5.3
290	35	6.2	5.8	5.6	5.5	5.2	6.8	6.3	6.2	6.1	5.7
	45	6.6	6.2	6.0	5.9	5.6	7.3	6.8	6.6	6.5	6.1
302	45	6.8	6.4	6.2	6.1	5.7	7.5	7.0	6.8	6.7	6.3
356	45	7.6	7.2	7.0	6.9	6.5	8.5	7.9	7.7	7.5	7.1

**DESIGN ASSUMPTIONS:**

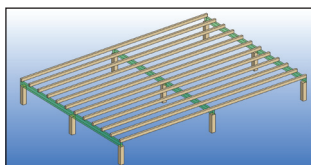
1. The single spans listed are the clear distance between supports.
2. The spans are based on uniform floor loads only as listed for each table.
3. Live load deflection has been limited to the lesser of L/360 or 9mm. Permanent load deflection has been limited to lesser of L/300 or 12mm, and dynamic performance is checked as the maximum of 2mm deflection under a 1kN static load.
4. The spans are based on an end bearing length of at least 38mm and internal bearing length of 63mm.

**GENERAL NOTES:**

1. Span is the clear distance between supports. Calculation is based on clear span plus 1/2 the bearing lengths.
2. The LP SolidStart LVL joists must span at least 2 adjacent spans to be continuous. To prevent uplift, short span should be > 0.5 times the long span. For continuous span conditions that do not meet this criteria, use the single span table. Always use the longest span with either table.
3. For loading conditions not shown, contact your LP representative.

**TO USE:**

1. Calculate FLOOR LOAD WIDTH as 1/2 (Span 1 + Span 2) for single span joists, or 5/8 (Span 1 + Span 2) if joists are continuous over the floor bearer.
2. Locate the FLOOR LOAD WIDTH that meets or exceeds your condition.
3. Scan down the column until you meet or exceed the span of your application.
4. Scan left to determine the required beam size.



**E14 (F17) LVL FLOOR BEARERS - RESIDENTIAL TIMBER FLOOR TOTAL DEAD LOAD 40 kg/m<sup>2</sup>**

Size	Floor Load Width (m)								Floor Load Width (m)							
	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4
	Max. SINGLE Bearer Span (m)								Max. CONTINUOUS Bearer Span (m)							
90x63	1.7	1.5	1.3	1.2	1.2	1.1	1.0	1.0	1.9	1.8	1.6	1.5	1.4	1.3	1.3	1.2
130x63	2.5	2.2	2.0	1.8	1.7	1.6	1.5	1.5	2.8	2.6	2.4	2.2	2.1	2.0	1.9	1.8
150x63	2.9	2.5	2.3	2.1	2.0	1.9	1.8	1.7	3.2	3.0	2.7	2.5	2.4	2.3	2.1	2.0
170x63	3.2	2.8	2.6	2.4	2.2	2.1	2.0	1.9	3.6	3.4	3.1	2.9	2.7	2.6	2.4	2.3
200x63	3.8	3.3	3.0	2.8	2.6	2.5	2.4	2.3	4.2	3.8	3.5	3.3	3.2	3.0	2.8	2.6
241x63	4.3	3.9	3.6	3.4	3.2	3.0	2.9	2.7	4.9	4.4	4.1	3.9	3.7	3.5	3.4	3.2
302x63	5.1	4.6	4.3	4.0	3.9	3.7	3.6	3.4	5.8	5.2	4.8	4.6	4.4	4.2	3.8	3.3
356x63	5.7	5.2	4.8	4.6	4.4	4.2	4.0	3.9	6.5	5.9	5.5	5.2	4.9	4.3	3.7	3.3

Member must have a minimum bearing length of 115mm at the internal supports.

Note: Unless noted otherwise, the minimum bearing length for end supports is 65mm, and internal supports, 90mm.

**ADDITIONAL NOTES:**

1. Tables are based on Single supported and Continuous span applications only. Where there are special load requirements, use the software for design or contact your local LP representative.
2. Span is the clear distance between supports. Calculation is based on the clear span plus 1/2 the minimum bearing length at end spans as noted above.
3. Bearing lengths based on compressive stress perpendicular to grain of 12.0MPa for LP SolidStart LVL.
4. Dynamic performance is checked as the maximum of 2mm deflection under a 1kN static load.

Refer to latest version of the Australian LP SolidStart Technical Guide for additional details and installation information.