

SAME PERFORMANCE. SMARTER SIZES.

DON'T OVER-SPEC BY HABIT. IF YOU'VE ALWAYS CALLED UP (F17) E14, HERE'S WHY E-BEAM E13.2 LVL IS THE EASY, LIKE-FOR-LIKE CHOICE FOR JOISTS, LINTELS, BEAMS & RAFTERS



1. THE EXPLAINER

- **“E” = elasticity (stiffness)**, not strength. F17 is often nicknamed “E14” because its **AVERAGE** (not minimum!) short-term modulus of elasticity is **14,000 MPa**. e-beam’s short-term modulus of elasticity is **13,200 MPa (“E13.2”)** — a tiny difference in deflection in most jobs.
- **Strength is what carries the load.** e-beam’s **minimum** bending strength is **equal or higher** (42–50 MPa depending on depth) than F17, so it does the heavy lifting.
- For common call-ups (see below), e-beam **meets or exceeds performance used on edge** as per **AS1684**.

Bottom line: You’re not “downgrading” — you’re switching to an LVL that’s engineered to at least match strength and with virtually the same stiffness in practice. E13.2 LVL has been the primary specified LVL grade in Australia and New Zealand for over 25 years and unlike others is here to stay.



2. QUICK SIZE-SWAP GUIDE (ON-EDGE USE PER AS1684)

Use these pairs to match or beat F17 performance in **both strength and stiffness**:

You used to call up...	Switch to e-beam...
120 × 45 F17	130 × 45 e-beam
140 × 45 F17	150 × 45 e-beam
190 × 45 F17	200 × 45 e-beam
290 × 45 F17	300 × 45 e-beam

If you're swapping **like-for-like sizes beyond these**, just check our **Span Tables** or your timber sizing software to confirm.

3. MYTH VS FACT

Myth: E13 is weaker than E14.

Fact: E relates stiffness and by definition is the **average** value. Strength is the **minimum** structural requirement — and e-beam's strength is equal or higher than F17.

Myth: If it's not E14, it'll sag.

Fact: The stiffness difference (E13.2 vs E14.0) is small and based on average published values. With the size pairs above, e-beam meets or out-stiffens the 'nearest' F17 size when used on edge.

Myth: Changing size will blow the design.

Fact: The swaps above are standard widths/depths that fit common details. Where you keep the same size (90×45, 240×45), stiffness is within 5% and strength is better.

4. WHY BUILDERS ARE SWITCHING

- **Engineer-grade consistency:** LVL is uniform and predictable. E13.2 LVL has been the dominant specification in Australia for over 25 years, and unlike promotional or country specific imported products will be here to stay
- **Australian-made** with local supply.
- **Termite Protection:** Glue-line treatment and H2/H3 options available.
- **Fast checks:** Use Wesbeam Span Tables or your timber design software.

5. HOW TO APPLY THIS ON SITE

1

Identify any **F17/ E14** call-ups in joists, lintels, beams or rafters **on edge**.

2

Use the **Size-Swap Guide** above, or keep the **same size** where listed.

3

If unsure, confirm with our **Span Tables / Engineering Team**.

4

Install per standard good practice — keep members **on edge**, dry, straight, and supported.



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