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hy90[®] LINTEL SUBSTITUTION FOR SAWN TIMBER

LINTELS

Lintels are members that sit in a load bearing wall frame to support vertical loads applied by rafters, trusses, floor joists (in the lower storey of two storey) and other associated roof and floor members. Lintels are commonly applied as part of a system that includes other components such as wall plates, trimmers, jack studs, etc.

Lintels have a tighter definite design deflection limit than all other members in houses to reflect the required clearance they need to maintain over window and door frames.

HY90[®]

hy90[®] is a lightweight, straight and uniform nominally 90 mm thick LVL section. The consistency of LVL products provides predictable deflection performance over sawn timber alternatives. hy90 section sizes are targeted to suit the commonly applied loading whilst providing a thickness matching 90 mm timber framing, removing the need for packing out of frames.

The use of hy90 in wall frames removes the need for packing, planning and nail lamination commonly applied to sawn timber used in lintel applications. This increases productivity and removes additional processing whilst reducing Occupational Health & Safety risk associated with nail lamination.

HY90[®] LINTEL SUBSTITUTION

The following table has been developed using sound structural engineering practices and NZS 3603, Timber Structures Standard, enabling users to directly substitute correctly specified structural grade timber options with a hy90 LVL section when used as a single beam element or lintel.

For both serviceability and strength limit states design, the hy90 section sizes nominated below exhibit structural properties exceeding those of the SG10 (or SG8) section(s) nominated below when used as a single beam element or lintel.

QUALITY

hy90 is manufactured in a fully quality controlled process to meet the requirements of AS/NZS 4357 for structural LVL. Quality control is independently audited and product quality both certified by the Engineered Wood Products Association of Australasia (EWPA). This is an important consideration where reliability must be guaranteed.

hy90[®] Lintel Substitution Table

Specified sawn timber*	hy90 [®] permitted substitution
2/140 x 45 SG10	150 x 90 hy90
1/190 x 45 SG10	150 x 90 hy90
2/190 x 45 SG10	200 x 90 hy90
1/240 x 45 SG10	200 x 90 hy90
2/240 x 45 SG10	240 x 90 hy90
1/290 x 45 SG10	240 x 90 hy90
2/290 x 45 SG10	300 x 90 hy90

*Suitability for substitution of SG10 or SG8 assuming that original specification was performed correctly.

AVAILABILITY

hy90 is readily available H1.2 treated via glueline and surface spray which is suitable for use as lintels, studs and other situations defined as weather-protected applications covered by NZS 3602 Section D, "Members protected from the weather but with a risk of moisture penetration conducive to decay" where H1.2 treatment is specified. Hy90 is available in 6 standard sizes as detailed below in packs ex. Marsden Point.



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hy90[®] sections stocked at Marsden Point

hy90 size	Pack Lengths (m)	No. Pieces per pack
150 x 90 hy90	4.8, 5.4, 6.0, 7.2	16
200 x 90 hy90	4.8, 5.4, 6.0, 7.2	12
240 x 90 hy90	4.8, 5.4, 6.0, 7.2	10
300 x 90 hy90	4.8, 5.4, 6.0, 7.2	8
360 x 90 hy90	5.4, 6.0, 7.2	6
400 x 90 hy90	7.2	6

Note: Some lengths available piecemeal through the distribution centre. Contact customer services for alternatives.

MARKET AND TECHNICAL SUPPORT

CHH Woodproducts offers significant market and technical support that includes:

- Toll free support for builders, designers, architects and engineers using LVL
- In house software platforms for the design of common house elements such as designIT[®]
- Experienced timber design engineers capable of providing design support for commercial projects

CHH Woodproducts also have a number of other targeted engineered wood products including:

- hyJOIST[™] – a plywood and LVL i-beam, perfect for floor joist and rafter applications
- hyONE[™] – a high stiffness (E = 16.0 GPa) beam for large load, large span applications
- hySPAN[™] (E=13.2 GPa) – available in 45 mm and 63 mm thick section ranging from 1.8 m through to 13.2 m long, hySPAN is the ideal choice for all structural applications
- hyCHORD[™] – an E2 11.0 GPa product with high strength properties for use in truss design

MORE QUESTIONS?

To further explore the opportunities of LVL in building systems contact CHH Woodproducts on 0800 808 131.