

# SmartLVL® 8

## 1.0 Product description

SmartLVL 8 Framing is a H1.2 treated Laminated Veneer Lumber (LVL) structural framing timber available as 90 x 45 mm, 140 x 45 mm, 190 x 45 mm, 240 x 45 mm and 300 x 45 mm sections that is an alternative to Radiata pine solid timber suitable for use where Hazard Class H1.2 applies.

## 2.0 Technical Specification

The SmartLVL 8 Characteristic values conform to table ZZ8 – Characteristic values for design – Structural LVL used 'on-edge' (moisture content 15% or less). It is H1.2 glueline preservative treated, in accordance with the requirements of the AS/NZS 1604.1-2021 Preservative-treated wood-based products Part 1: Products and treatment, for use in applications specifying Hazard Class H1.2 or less. SmartLVL 8 is manufactured to a nominal moisture content of less than 15%.

SmartLVL 8 LVL is manufactured in accordance with AS/NZS 4357 from Radiata pine logs sourced from sustainable and responsibly managed forest resources, using a phenolic formaldehyde resin adhesive.

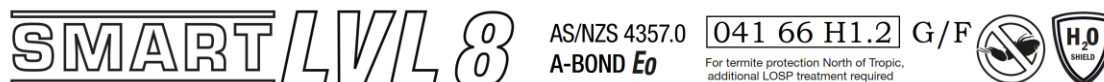
SmartLVL 8 is product certified by Benchmark Product Certification (BSI) to conform to AS/NZS 4357.0, a JAS-ANZ accredited certification scheme.

The bonding of SmartLVL 8 veneer utilises a Bond Type A adhesive complying with AS/NZS 2754.1

SmartLVL 8 has an E0 formaldehyde emission class in accordance with AS/NZS 4357.0 Table 1

## 3.0 Product identification

SmartLVL 8 is currently branded every 1.2 metres as follows:



## 4.0 Handling and Storage

SmartLVL 8 must be handled and stored as other kiln-dried framing timber and exposure to moisture minimised.

- i. Store SmartLVL 8 flat on a hard, dry surface
- ii. If surface isn't paved, the ground should be covered with a polythene film
- iii. Keep covered with waterproof material that allows bundles to "breathe"
- iv. Use bearers (bolsters) between the ground and the first bundle (4 metre max spacing)
- v. Use 100 x 50 timber flat between bundles at same spacing as bolsters
- vi. Take great care to rewrap remaining material after opening bundles
- vii. LVL "grows" in thickness and depth when allowed to get wet....KEEP DRY!
- viii. LVL with high MC has short term reduction in Characteristic Strengths .... KEEP DRY!
- ix. Under NO circumstances is stored SmartLVL to be in contact with the ground.

## 5.0 Design Information General

SmartLVL 8 Framing is an alternative to conventional sawn timber framing and being a manufactured engineered wood product, SmartLVL 8 will provide straight and stable framing members for applications such as studs, plates, joists, rafters etc and as members for pre-nail frames.

SmartLVL 8 is used as structural framing timber for non-specifically designed timber frame buildings designed and constructed in accordance with NZS 3604 and specifically designed buildings in accordance with NZS/AS1720.1.

SmartLVL 8 is H1.2 glue/line/face veneer treated in accordance with AS/NZS 1604.1-2021 Preservative-treated wood-based products. It is used as a substitute to H1.2 treated radiata pine solid timber specified in NZS 3602 and is in conformance to Section 6 of NZS 3640.

## 6.0 Structure

### 6.1 Specific Design

The characteristic properties for SmartLVL 8 shall be taken from Table ZZ8 from NZS/AS1720.1. For the purpose of joint design in accordance with NZS/AS1720.1, assign the appropriate group as shown in Table 1.

Table 1: Classification for SmartLVL 8 Framing for joint design in NZS/AS 1720.1:2022

	Nails in lateral loading		Nails in withdrawal	
	Parallel*	Perpendicular*	Parallel*	Perpendicular*
SmartLVL 8	JD4	JD4	JD5	JD4

\* Parallel and perpendicular refer to the direction that nails are inserted with respect to the LVL laminations.

If SmartLVL 8 is intended for use in specific design applications with nail plates i.e. trusses, connection design properties must be verified by a test from the respective nailplate manufacturer. These values are proprietary to that nailplate manufacturer.

### 6.2 Non-Specific Design

SmartLVL 8 is manufactured in accordance with AS/NZS 4357 and is an acceptable construction material as specified by NZS 3604, Paragraph 2.3.9.2. It is suitable for substitution with solid timber as specified by NZS 3604, Paragraph 2.3.9.5.

#### 6.2.1. Wall bracing

Proprietary bracing systems may be used with SmartLVL 8.

#### 6.2.2. Wall cladding

Cladding systems where the fixings are as described in NZBC Acceptable Solution E2/AS1 Table 24 are suitable for use with SmartLVL 8.

## 7.0 Durability

SmartLVL 8 must be protected from moisture by exterior cladding and internal lining and flooring which must meet the provisions of NZBC Clause E2 and Clause E3.

SmartLVL 8 is expected to have a serviceable life similar to conventional timber framing.

SmartLVL 8 will not normally require maintenance. However, if damage occurs, then repairs or replacement must be carried out to ensure the integrity of the building.

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