



Building Product Information Sheet (BPIR)

Product Name	SG8
Product Line	New Zealand Radiata Pine Structural Timber
Product Identifier	SG8 KD/TW
Product Class	Class 1
Product Finish	Machine Gauged and Rough Sawn
Treatment Types	CCA, Boron
Product Sizes	Machined: 70x45, 90x45, 90x70, 90x90, 140x35, 140x45, 190x45, 240x45, 290x45 Rough Sawn: 75x50, 100x50, 100x75, 100x100, 150x40, 150x50, 200x50, 250x50, 300x50

Description

Structural (SG8) Radiata timbers are commonly referred to as studs, bottom and top plates, joists, bearers, rafters, purlins, beams, and lintels according to their application and use in a building.

The radiata pine milled by Kiwi Lumber is sourced entirely from renewable plantations within New Zealand. Kiln dried Radiata Pine. Machine stress graded for structural assurance. Compliant with New Zealand Standards.

All Kiwi Lumber SG8 products are supplied as Kiln dried - and can be treated and machine gauged. This timber can be used for a selection of the following applications where timber dimension, grade and treatment are specified by an Engineer or Designer and where the application meets the New Zealand Building Code/ NZS3604

- Floor framing,
- Roof framing and trusses,
- Wall framing,
- Mid-floor framing,
- Interior flooring,
- Purlins,
- Rafters,
- Valley boards,
- Ceiling battens,
- Internal walls,
- Joists,
- Deck framing,
- Enclosed balcony handrails,
- Subfloor framing.


Mechanically stress graded (SG) timber is intended for structural construction and will have the grade imprinted along the length of each board and treatment identification by end tags for CCA products or heat branded for Boron products.

Relevant Building Code Clauses

- B1 Structure — B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3 and B1.3.4.
- B2 Durability — B2.3.1 (a,b,c)

Contributions to Compliance

SG8 Pine Structural Timber - Clause B1 (Structure)

To ensure that all timber meets New Zealand Standards, Kiwi Lumber uses a third-party auditing body, Grade Right NZ Ltd  to oversee our Quality Assurance testing and procedure. The timber is marked with the TreatRight tag (for CCA product) for preservative purposes, and GradeRight imprint for quality verification purposes.

When Kiwi Lumber SG8 Timber is used correctly as it is engineered and designed to, it is designed to safeguard people from injury and loss of amenity and protection of other property.

- Kiwi Lumber SG8 structural timber is required to fulfil the functional requirements of buildings throughout their lives, through strength testing and correct installation and design.
- When used correctly, there is low probability of a building rupturing, becoming unstable, losing equilibrium, or collapsing during their intended duration when the correct product is used for its intended use. This is reinforced by our strict quality control of all Grade Standards.
- Timber strength, suitability, treatment, and design when used in accordance with NZS3604 standards, means that a Timber framed building or structure causing a loss of amenity through undue deformation, response to vibration, degradation, or other physical characteristics throughout their lives when the building is in use is prevented to the best possible level.

SG8 Pine Structural Timber - Clause B2 (Durability)

- SG8 treated timber is guaranteed for 15 years* (see Koppers warranty) Boron treated product and guaranteed for 30 years* for CCA treated product when used in a ventilated cavity construction system, or 5 years when no cavity exists.
- The treated wood is guaranteed to withstand insect attack and fungal decay and remain structurally fit for purpose for these periods when installed correctly. This is conditional on the timber having been treated to reach or exceed the Hazard Level requirements of NZS3640.
- For radiata pine structural timber products used in framing and Interior construction, the treatment is specified to ensure a long life and trouble-free service under the Building Code. Typical examples are framing and truss timbers and subfloor support.
- Treated timber meets the New Zealand Building Code B2 Durability requirements when treated in accordance with the requirements of NZS3640, and used in accordance with NZS3602 to ensure that in-service moisture content remains at 20% or below, i.e. the building is not leaking, and there is maintenance of the external envelope of the building so that the maximum in-service moisture content continues to be met. (See the Warranty for Koppers Performance Chemicals: Treated Wood Product Warranty).

Scope and Limitations of Use

SG8 Pine Structural Timber

Kiwi Lumber Radiata SG8 is Kiln Dried and treated. This treatment provides effective timber preservative and resistance to fungal decay and insect attack. The preservative formulation is applied to dry timber using a controlled vacuum pressure process in an industrial timber treatment plant that ensures deep penetration without compromising the integrity of the wood.

SG8 is a structural timber which is quality verified to ensure that the wood is straight, and the dimensions are accurate so that it can be effectively used for residential and commercial building of frames & trusses, joists, bearers, roof beams & lintels.

For treated wood: cut end protection is not required for end sections, holes, rebates, notches, machining etc.

Treated SG8 wood is compatible with virtually all other building materials, fasteners, and hardware. However, for some situations such as building near the sea galvanised steel is recommended. Details on the correct type of fasteners is given in NZS3604.

All Structural timber complies with the design requirements of NZS3604:2011 Timber Framed Buildings. The engineering properties are contained in NZS3603:1993 A4 and are verified by the process specified in NZS3622:2004 A1.

SG8 (Stress Graded 8 with an average stiffness of 8.0GPa) is tested as a joist on edge by bending the piece to measure stiffness and then a bending strength load applied to measure bending strength. This testing gives consumers confidence that Grade Verified timber will perform in service.

Maintenance Requirements

SG8 Pine Structural Timber

The benefits of SG8 Pine Structural Timber are optimised by looking after it as dry timber during construction:

- Limit exposure to weather and rain as much as possible as it is intended for interior use only. Maximum exposure time to weather during construction should not exceed 3 months. Store off the ground and cover to protect from water and allow for ventilation.
- Protect pre-cut and pre-nailed frames.
- Enclose frames as soon as possible.
- Avoid ponding of water on floors
- Dry out after exposure to moisture. Job site storage - intended for interior use only - store off the ground and cover to protect from water and allow for ventilation.

Design & Installation Requirements

SG8 Pine Structural Timber

- Must be installed by a licensed building practitioner (even where restricted building work does not apply) It must be installed in accordance with the specifications and installation details described in NZS 3604 or as detailed by the Chartered Professional Engineer, and good building practice.
- SG8 KD/TW Timber must not be in situations where it will be in direct contact with the ground.
- Treated pine is treated with a preservative and can as a result show a higher moisture content because of treatment. However, the moisture content will return to normal levels during fabrication or construction. Treated SG8 wood is compatible with virtually all other building materials fasteners and hardware such as bright steel. For some situations such as building near the sea galvanised steel is recommended.
- Treated structural timber should be used in its final shape and form as supplied. Cutting, notching and drill holes required for fitting and installation do not require re-sealing. IN NO CIRCUMSTANCES should treated timber be rip sawn or re-manufactured from the original dimensions.
- Treated Structural timber for internal use should not be used where it will be exposed to the outdoor environment. During construction if the wood should become wet it should be allowed to dry before being covered or enclosed.
- Structural timber should not be used where it will be subject to loadings that are above design limits as specified in NZS3604.2011 Timber Framed Buildings or NZ/AS1720 Part 1.2022 Timber Structures.
- Structural Timber must be installed in accordance with good building practice, sound design principles, and in accordance with the specifications and installation details provided by the engineer and/or other qualified design professional.
 - It is the responsibility of the builder to purchase the correct grades from the supplier and install them according to the consented design/plan. In the case of prefabricated buildings, the responsibility rests with the frame and truss manufacturer. Where grades which are not available have been specified, builders should ask the designer to redesign in available grades and amend the consent.

- Design responsibility lies with the building owner and the professionals that they engage. The specifier for the project must ensure that the details in the specification for their individual projects are appropriate for the intended application. The specifier must also ensure that additional detailing is provided for specific design or any areas that fall outside the scope and specifications of normal KD/TW Pine Structural Timber.
 - Designers should be aware there are now three sets of design tables within NZS3604 and they need to ensure plans and specifications are clear and include grade, size of timber, spacing etc. as this information is critical at consent and build stages.

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Contact Details

Manufacturer Location	New Zealand
Legal and Trading name of manufacturer (s)	Kiwi Lumber (Masterton) Ltd
Manufacturer address for service	First Floor, 205 Hastings Street South Hastings 4122
Manufacturers Website	www.kiwilumber.co.nz
Manufacturers Email	sales@kiwilumber.co.nz
Manufacturers phone number	0800 222 612
Manufacturer(s) NZBN	9429035290230 (Masterton)

Documentation

- **Verified Timber**
<https://www.verifiedtimber.co.nz/>
Structural Timber Information
- **NZ Timber Preservation Council Inc**
[NZ Timber Preservation Council \(nztpc.co.nz\)](http://nztpc.co.nz)
Timber Preservation Information
- **Building Performance**
<https://www.building.govt.nz/building>
Certification Design Maintenance
- **Koppers FramePro Brochure**
<https://www.kopperspc.co.nz/pdfs/Fram...>
<https://www.kopperspc.co.nz/resources/sds.html>
https://www.kopperspc.co.nz/pdfs/Koppers_NZ_Warranty.pdf
Maintenance Test results/resources/warranty
- **Grade Right NZ Ltd Grade Verified Information Sheet: What is SG timber?**
<https://www.graderight.co.nz/home/>
Certification Installation Test results