

Product name	100x50 (90x45) H3.2 CCA KD MG SG8 Pine Structural Timber
Product line	New Zealand Radiata Pine Structural Timber
Product identifier	100x50 (90x45) H3.2 CCA MG SG8 Pine Structural Timber
Product Class	Class 1

Building Product Information Sheet (BPIR)

Description

Structural (SG8) H3.2 CCA Radiata timber is for structural wood products used above ground. The CCA 3.2 level of treatment allows for the wood to be used where it will be exposed to weather and moisture. The 3.2 CCA is required to ensure a long life and trouble-free usage.

Manufactured from plantation grown New Zealand Radiata Pine. • Kiln dried Radiata Pine. • Machine stress graded for structural assurance. • Compliant with New Zealand Standards

This timber is Kiln dried, smooth (machine gauged to ensure dimensional accuracy and straightness) and can be used for a selection of the following applications where timber dimension, grade (SG8) and treatment (H3.2) are specified by an Engineer or Designer and where the application meets the New Zealand Building Code/ NZS3604 h NZS 3640.

- Joists and bearers for decks
- Pergola and veranda beams
- Fence Rails
- Fence palings
- Trellis
- Handrails
- Framing (as an alternative to H1.2)
 - Floor framing,
 - Roof framing and trusses,
 - Wall framing,
 - Mid-floor framing,
 - Interior flooring,
 - Purlins,
 - Rafters,
 - Internal walls,
 - Joists,
 - Subfloor framing.

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)
- F2 Hazardous building materials — F2.3.1

Contributions to Compliance

100x50 (90x45) H3.2 CCA KD MG SG8 Pine Structural Timber

Clause B1 (Structure)

- Strict internal standards are maintained for quality control of all Structural Timber. In addition to these standards Grade Right Ltd performs audits to ensure the verified framing programme is accurate. Sonic Testing and human visual grading are used to ensure the standards for our products. Timber quality is constant.
- When SG8 H3.2 CCA 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.
- SG8 H3.2 CCA structural timber is required to fulfil the functional requirements of buildings and structures throughout their lives, through strength testing, correct installation and design.
- There is an exceptionally low probability when used 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.

Contributions to Compliance

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Clause B2 (Durability)

SG8 H3.2CCA treated timber is guaranteed for 50 years* (see Koppers warranty). The treated wood is guaranteed to withstand insect attack and fungal decay and remain structurally fit for purpose for these periods when installed and maintained correctly. This is conditional on the timber having been treated to reach or exceed the Hazard Level H3.2 requirements of NZS3640. For radiata pine structural timber products used in framing and Interior construction, the H3.2CCA 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.

H3.2 CCA 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)

Contributions to Compliance

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Clause F2.3.1 (Hazardous building materials)

Chromate Copper Arsenate (CCA) is a preservative that has been used extensively around the world for more than 80 years and has stood the test of time.

Radiata H3.2 CCA KD MG SG8 is NOT considered a hazardous material and is safe to use, especially when simple Health and Safety protocols are in place:

- Eyes: Wear non-fogging goggles, full face shield, or safety glasses with side shields when cutting this product.
- Hands and Skin: Wear protective clothing such as overalls and shirt with sleeves, also closed in footwear. Wear puncture-resistant gloves (e.g. Leather) when handling dry wood.
- Respiratory: Use in well-ventilated area or outside. Wear a class P1 or P2 replaceable filter or a disposable face piece respirator should be worn if wood dust is generated.
- General: Wash hands before eating, drinking, smoking, using the toilet and at the end of the shift.
- Do not dispose of offcuts by burning, use approved landfills only and do not use as 'mulch' for gardens.

Scope of Use

100x50 (90x45) H3.2 CCA KD MG SG8 Pine Structural Timber

Radiata SG8 is Kiln Dried Machine Gauge 100x50 (90x45) H3.2 CCA Treated. CCA is a non-hazardous product that has been used in New Zealand for over 50 years with a proven safety record when used as recommended. CCA is often referred to as 'Tanalised'. 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 machine gauged 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. SG8 3.2 CCA is also used in common building, landscaping, fencing and some rural applications.

The benefits of H3.2 CCA KD MG SG8 Pine Structural Timber are:

- It is long lasting and robust in New Zealand conditions which are recognised as being severe for wood rot and decay.
- Its natural appearance makes it ideal for outdoor structures.
- Painting or staining for enhanced appearance are easy to apply.
- Low maintenance and easy to work with.
- SG8 Pine Timber is made from a renewable resource.

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 of about 345kg applied to measure bending strength. This testing gives consumers confidence that Grade Verified timber will perform in service.

Conditions of Use

100x50 (90x45) H3.2 CCA KD MG 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.
- H3.2 CCA SG8 Timber must not be in situations where it will be in direct contact with the ground. (If the finished product will be <200mm of the ground, it is recommended that H4 or higher be used)
- All metal fasteners and fixings must be hot dipped galvanised steel as a minimum. Where items will be difficult to replace or maintain or where greater levels of corrosion are expected such as structures near to the sea, stainless steel fixings are a minimum. DO NOT USE ALUMINIUM in contact with CCA treated wood.
- Treated wood products should be used in its final shape and form as supplied. If subsequent cutting to length rebates or notch holes are formed for required for fitting and installation, exposed cuts should have an in can remedial preservative applied such as Enseal Clear or Green. IN NO CIRCUMSTANCES should H3.2 CCA treated timber be rip sawn or re-manufactured from the original dimensions.
- 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 H3.2 CCA KD MG SG8 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.

Contact Details

Manufacture location	New Zealand / Aotearoa
Legal and trading name of manufacturer(s)	Max Birt Sawmills Ltd
Manufacturer address for service	155 State Highway 2, Pokeno, Waikato 2471
Manufacturer website	www.maxbirtsawmills.co.nz
Manufacturer email	sales@maxbirt.co.nz
Manufacturer phone number	092947800
Manufacturer NZBN	9429040393711

Documentation

- Verified Timber
<https://www.verifiedtimber.co.nz/>
Structural Timber Information
- Southpine Information Sheet H1.2 Boron Treated Framing Timber
<https://southpine.co.nz>
Design Installation
- 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