

Mitchell Bros Sawmill



Building Product Information Sheet

This sheet is produced in compliance with the requirements of the *Building (Building Product Information Requirements) Regulations 2022*. Under Schedule 1 of those regulations certain information must be disclosed about designated building products (in this case **construction poles of Radiata pine**) to provide building product users with data about how building products contribute to compliance with the Building Code.

Product: Preservative treated wooden construction poles of Radiata pine

Preservative treated wooden construction poles of Radiata pine are graded for physical properties and preservative treated for durability.

Grading - poles must be graded in accordance with NZS3605 Timber piles and poles used in building. Clause 5 of this standard sets out the requirements for construction poles and piles in terms of:

- 1 Physical properties: - Construction poles and piles are limited to those characteristic stresses that are given in NZS/AS1720 Part 1.2022.
- 2 Form: - Construction poles and piles shall comply with 5.2 of NZS3605 relating to limits on sweep and crook.
- 3 Preservative treatment: - All preservative treated wooden construction poles and piles of Radiata pine must be treated to at least Hazard class H5 as described and specified in AS/NZS1604.2021 Preservative treated wood-based products. H6 treated poles are necessary where the poles are to be used in a marine environment such as in wharf and jetty piles in salt water and for walkway or bridge pilings across estuarine ground.
- 4 Dimensions: 5.3 of NZS3605 states that the length and diameter of construction poles and piles shall be as specified by the designer as part of a specific engineering design.

Place of Manufacture: New Zealand



New Zealand Timber Industry Federation Inc – original developed for industry use and uncontrolled after distribution, queries should be addressed to the nominated producer.

Mitchell Brother Sawmillers Ltd

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Relevant Building Code clauses:

B1 Structure - By testing and comparison with Acceptable Solution B1/AS1 and verification methods (VM) as specified in NZS3605 Timber piles and poles used in building

B2 Durability - By testing and comparison with Acceptable Solution B2/AS1 and verification methods (VM) as specified in AS/NZS1604.2021 Preservative treated wood-based products



Statement on how preservative treated wooden construction poles of Radiata pine are expected to contribute to compliance:

B1 Structure - the products shall meet the requirements of Clause B1 of the Building Regulations 1992, Schedule 1 the Building Code in particular clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3 and B1.3.4.

B1.1 - safeguarding people from injury and loss of amenity and protection of other property

B1.2 - functional requirements of buildings throughout their lives

B1.3.1 - low probability when used in a building in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures of rupturing, becoming unstable, losing equilibrium or collapsing throughout their lives

B1.3.2 - low probability when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures of causing loss of amenity through undue deformation, vibratory response, degradation or other physical characteristics throughout their lives when the building is in use

B1.3.3 - when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures, account is taken of all the physical conditions that are likely to affect the stability of the building element or building

B1.3.4 - when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures, allowance is made for;

i consequences of failure

ii intended use of the building

iii variation in the properties of materials and site characteristics

iv accuracy limitations inherent in methods used to predict the stability of buildings

B2 Durability - the products shall meet the requirements of Clause B2 of the Building Regulations 1992, Schedule 1 of the Building Code, in particular clause B2.3.1(a) - the life of the building, being not less than 50 years.

For greater detail refer to clause B2.3.1 of the Building Regulations 1992.

The durability of preservative treated wooden construction poles of Radiata pine is verified by processes and methods stated in AS/NZS1604.2021 Preservative treated wood-based products.



Limitations on the use of preservative treated wooden construction poles of Radiata pine:

Where treated to H5 of AS/NZS1604.2021 Preservative treated wood-based products these products should not be used in structures that will be exposed to the marine environment such as in wharf and jetty piles in salt water and for walkway or bridge pilings across estuarine ground. In such cases the required hazard class is H6.

Design requirements that would support the use of preservative treated wooden construction poles of Radiata pine:

These products are an integral component of timber framed flooring systems constructed in accordance with the specifications set out in NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures. Where used in ground retaining applications the design requirements are as set out in NZS/AS1720 Part 1.2022 Timber structures.

Maintenance requirements:

Installation requirements:

Preservative treated wooden construction poles of Radiata pine must be installed by a Licensed Building Practitioner certified for foundations.

Preservative treated wooden construction poles of Radiata pine are not subject to a warning or ban in terms of S26 of the *Building Act 2004*.

August 2023



Mitchell Bros Sawmillers



Building Product Information Sheet

This sheet is produced in compliance with the requirements of the *Building (Building Product Information Requirements) Regulations 2022*. Under Schedule 1 of those regulations certain information must be disclosed about designated building products (in this case **New Zealand Structural timber of Radiata pine and Douglas fir**) to provide building product users with data about how building products contribute to compliance with the Building Code.

Product: New Zealand Structural timber of Radiata pine and Douglas fir

Timber produced from solid wood used in building and construction.

Structural 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. Examples of typical uses of structural timber are:

- 1 exterior and interior wall framing
- 2 roof trusses
- 3 sub floor and mid floor framing
- 4 deck sub frames

Structural timbers are available in a range of conditions and sizes the most common being:

Grade: SG6, SG8, SG10 and SG12 - the most common grade used in construction is SG8, grade refers to timber strength and stiffness.

Hazard class: H1.2, H3.1, H3.2, H4, H5 and H6 - the most common hazard class for structural timber is H1.2 timber used in situations protected from the weather such as wall framing. H3.2 timber can be used as bottom plates.

Moisture content: structural timber is normally kiln dried to 16% but ambient conditions in use will cause variations from this.

Surface: structural timber is available as rough sawn or planer gauged.

Dimensions (actual):

standard dimensions of kiln dried gauged structural timber are:



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face: 45, 70, 90, 140, 190, 240, 290mm

edge: 20, 35, 45, 70, 90mm

standard dimensions for rough sawn (ungauged) structural timber are:

face: 25, 50, 75, 100, 125, 150, 175, 200, 250, 300mm (350mm may be available)

edge: 25, 50, 75, 100, 125mm (150mm may be available)

Standard structural timber lengths: 2.4m to 6.0m in increments of 0.3m. Non-standard lengths may be available on special order.

Place of manufacture: New Zealand

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Relevant Building Code clauses:



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B1 Structure - By testing and comparison with Acceptable Solution B1/AS1 and verification methods (VM) as specified in NZS3622.2004 Verification of timber properties.

B2 Durability - By testing and comparison with Acceptable Solution B2/AS1 and verification methods (VM) as specified in AS/NZS1604.2021 Preservative treated wood-based products.

Statement on how structural timber is expected to contribute to compliance:

B1 Structure - the products shall meet the requirements of Clause B1 of the Building Regulations 1992, Schedule 1 the Building Code in particular clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3 and B1.3.4.

B1.1 - safeguarding people from injury and loss of amenity and protection of other property

B1.2 - functional requirements of buildings throughout their lives

B1.3.1 - low probability when used in a building in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures of rupturing, becoming unstable, losing equilibrium or collapsing throughout their lives.

B1.3.2 - low probability when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures of causing loss of amenity through undue deformation, vibratory response, degradation or other physical characteristics throughout their lives when the building is in use

B1.3.3 - when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures, account is taken of all the physical conditions that are likely to affect the stability of the building element or building.

B1.3.4 - when used in accordance with NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures, allowance is made for:

- i consequences of failure
- ii intended use of the building
- iii variation in the properties of materials and site characteristics
- iv accuracy limitations inherent in methods used to predict the stability of buildings.

B2 Durability – structural timber shall meet the requirements of Clause B2 of the Building Regulations 1992, Schedule 1 of the Building Code, specifically to the building elements having, with normal maintenance, to continue to satisfy the performance requirements of the Building Code. In particular clauses:

B2.3.1(a) - the life of the building, being not less than 50 years.

B2.3.1(b) - 15 years in some circumstances where building elements are moderately difficult to access or replace.

B2.3.1(c) - 5 years in some circumstances where elements are easy to access and replace.

For greater detail refer to Clause B2.3.1 of the Building Regulations 1992.

When preservative treated to the specifications set out in AS/NZS1604.2021 Preservative treated wood-based products structural timber of NZ Radiata pine or Douglas fir will comply with B2 Durability requirements.



Limitations on the use of structural timber:

- 1 Structural timber treated to H1.2 should not be used where it will be exposed to the outdoor environment.
- 2 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 NZS/AS1720 Part 1.2022 Timber structures.

Design requirements that would support the use of structural timber:

When used in construction, particularly work deemed to be Restricted Building Work (RBW) as defined in the Building (Definition of Restricted Building Work) Order 2011 it's use should be in accordance with the specifications set out in NZS3604.2011 Timber framed buildings or NZS/AS1720 Part 1.2022 Timber structures.

Maintenance requirements:

Ensure that structural timber, particularly timber treated to H1.2, is not exposed to continuous wetting or subject to high levels of moisture especially when used in applications that are hidden from clear view or are not readily accessible for regular inspection.

Installation requirements:

When used in Restricted Building Work as defined in the *Building (Definition of Restricted Building Work) Order 2011* Structural timber must be installed by a Licensed Building Practitioner with appropriate certification.

Structural timber is not subject to a warning or ban in terms of S26 of the *Building Act 2004*.

August 2023

