Product name	SG10 CodeRight Dryframe Protim Micro (MCA) KD (#CMNZ70136)
Product line	CodeRight Dryframe 50 Protim Micro Radiata Pine Structural Timber
Product identifier	CodeRight Dryframe Protim Micro MCA /SG10/Treatment Plant/H3.2/ CMNZ70136
Product Class	Class 1
Product Sizes	70x45, 90x45, 140x35, 140x45, 190x45, 240x45, 290x45, 200x75

Building Product Information Sheet (BPIR)

Description

Structural (SG10) H3.2 MCA Radiata timber is for structural wood products used above ground. CodeRight dry frame timber products treated with Protim Micro are fully backed by a CodeMark certification for structural timber applications in New Zealand. This new generation timber treatment provides the equivalent Hazard class protection of H3.2 Treated timber in New Zealand. The H3.2 MCA level of treatment allows for the wood to be used where it will be exposed to weather and moisture. It is required to ensure a long life and trouble-free usage. North Sawn Timber Ltd hold CodeMark certification for this product, Certificate number CMNZ70136. This certifies that the CodeRight Dryframe Protim Micro timber products produced by North Sawn Timber Ltd comply with the requirements of the New Zealand Building Code.

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

Protim Micro is a revolutionary Micronised Copper Azole (MCA) treatment preservative option delivering fully dry dimensionally stable timber products which can be used in any application where the H3.2 or lower hazard class is specified by an Engineer or Designer and where the application meets the New Zealand Building Code/ NZS3604

2. Lintels
3. Floor joists
4. Roof beam
5. General Framing
6. Trusses

1. Framing (as an alternative to BH1.2)
   - 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 —B1.3.1, B1.3.2, B1.3.3 and B1.3.4.
- B2 Durability — B2.3.1 (a)
- F2 Hazardous building materials — F2.3.1

Contributions to Compliance

SG10 H3.2 Protim Micro MCA KD

Clause B1 (Structure)

- CodeRight Dryframe 50 timber products treated with Protim Micro are fully backed by a CodeMark certification for structural timber applications in New Zealand.
- CodeMark Product Certificate North Sawn Timber
  CodeMark Certificate | North Sawn Lumber | Pine Lumber NZ (nslumber.co.nz)
  CodeRight Dryframe Protim Micro Structural Timber
- Strict internal standards are maintained for quality control of all Structural Timber. In addition to these standards Grade Right Ltd performs audits along with Asure Quality 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.
- The CodeRight structural timber products are treated using Protim Micro.
- When SG10 H3.2 Protim Micro MCA KD 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.
- SG10 H3.2 MCA structural timber is manufactured in accordance with the following standards: • NZS 3622- Verification of Timber Properties • AS/NZS 1748:2:2011 Timber Solid Stress Graded and are 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 correctly 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

SG10 H3.2 Protim Micro MCA KD

Clause F2.3.1 (Hazardous building materials)

SG10 H3.2 Protim Micro MCA KD structural timber is NOT Hazardous (See Koppers FramePro Brochure)
H3.2 Protim Micro Protim Micro is a revolutionary Micronised Copper Azole (MCA) treatment preservative option delivering fully dry dimensionally stable timber products.
This treatment is Green Guard certified and contains no Arsenic or Chrome so can be disposed of safely.
Micronised Copper Azole is the first solvent treated wood process to be certified under the Scientific Certification Systems Environmentally Preferred Product. (EPP) program based on life cycle assessment.

- 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.
- Offcuts and sawdust from Protim Micro treated timber may be disposed of in landfills or burned in commercial or industrial incinerators in accordance with local or state regulations.

- CodeMark Product Certificate North Sawn Timber
  CodeMark Certificate | North Sawn Lumber | Pine Lumber NZ (nslumber.co.nz)
  CodeRight Dryframe Protim Micro Structural Timber

Contributions to Compliance

SG10 H3.2 Protim Micro MCA KD

Clause B2 (Durability)

These products are manufactured in accordance with the following standards: • NZS 3622- Verification of Timber Properties • AS/NZS 1748:2:2011 Timber Solid Stress Graded • NZS 3631 New Zealand Timber Grading Rules. The New Zealand Building Code B2/AS1 specifies that timber framing products shall provide 50 years of durability. The CodeRight Dryframe Protim Micro timber products are backed by a limited 50-year durability provided by the manufacturer of the chemical Koppers Performance Chemicals* (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 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 H3.2 MCA 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.

- CodeMark Product Certificate North Sawn Timber
  CodeMark Certificate | North Sawn Lumber | Pine Lumber NZ (nslumber.co.nz)
  CodeRight Dryframe Protim Micro Structural Timber

Scope of Use

SG10 H3.2 Protim Micro MCA KD

Stress grading (SG) is the only way to accurately verify the structural strength of timber. New Zealand has very strict rules and regulations on stress grading (SG), so that each piece of timber under the SG program can be relied upon to perform structurally as expected. SG timber is first visually sorted to make sure it meets the minimum visual criteria and is then passed through either a sonic or mechanical grader to determine each piece of timbers minimum modulus of elasticity. SG timber is grouped according to this modulus of elasticity and branded so that the SG grade is identified. For example, SG10 has a minimum modulus of elasticity of 10 GPa. SG10 (Stress Graded 10 with an average stiffness of 10.0GPa) 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.

It 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 buildings for the following examples:

- Floor joists
- Roof beams
- General Framing
- Trusses

SG10 3.2 MCA is also used in common building, landscaping, fencing and some rural applications.

The benefits of SG10 H3.2 Protim Micro Structural Timber 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.
- SG10 Pine Timber is made from a renewable resource.
- A reduced low chemical footprint compared to traditional preservative treatments used in the H3.2 Hazard class as it does not contain the heavy metals of Arsenic and Chromium and removes the high cost to dispose of CCA shavings and CCA wood products at end of life.
- Increased dimensional stability over traditional timber product dried after wet treatment, free of fillet marks and discoloration after kiln drying and with consistency in sizing.
- The product is backed by a full 50-year limited durability warranty against decay fungi, and insect attack. It fully complies with the durability requirements contained with section B2/AS1 of the New Zealand Building Code (See Koppers Warranty)
- Following the 2022/2023 changes to the building code in relation to insulation, New Zealand has been divided into 6 Climate Zones with differing 'R' values for each of the six areas. (See Northpine Span Tables SG8/SG10) This impact on the R-values, i.e., the climate zones further north require less R-Value for some elements of the building than the climate zones further south. Differing R (Thermal Resistance) levels mean that in some areas the depth of a wall for example and the amount of insulation will be increased. While SG8-designed walls result in double studs at 600mm centres, the same wall in SG10 only requires a single stud at 600mm centres, there is no need for the insulation installer to trim standard insulation products to make them fit correctly. Better construction R-value, easier to install and half the studs required for an equivalent wall. SG10 can optimise the stud centre requirements, halve the volume requirement, and increase spans by up to 30%. It can also adjust the number of foundation piles required Designers specifying SG10 rafters instead of SG8, can increase the rafter centres which will help them achieve the R6.6 requirements in all buildings under 300 square meters.

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.

Conditions of Use

SG10 H3.2 Protim Micro MCA KD

- 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.
- Installers must consult and follow Coderight Dryframe Protim Micro Information Sheet coderight-dryframe-protim-micro-installation-manual-v1.1-rev.pdf (nslumber.co.nz) *Installation Manual*
- Protim Micro treated wood must be stored out of ground contact and preferably protected from wetting prior to installation Solvent odour may be noticeable from freshly treated wood. It is advisable to allow at least 4 days post-treatment drying in fillet in a well-ventilated area before installation.
- SG10 MCA Timber, just like CCA treated 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 Type 304 stainless steel fixings must be used. difficult to replace or maintain or where greater levels of corrosion are expected such as structures near to the sea, SGA H3.2 MCA is the only treated timber approved for Aluminium contact.
- Properly treated wood may contain areas of untreated heartwood that can be exposed when the wood is cut or drilled after treatment. It is recommended that a suitable brush-on wood preservative such as Protim reseal clear (or equivalent) is applied to all freshly exposed surfaces when cutting or drilling wood treated with Protim Micro. IN NO CIRCUMSTANCES should SG10 H3.2 MCA 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 SG10 H3.2 Protim Micro MCA KD 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.
- There is no mandatory requirement to apply a protective paint coating to Protim Micro H3 treated solid wood products, however paint protection will prolong the surface appearance of the wood and minimise dimension changes. Where finishing product such as primer, paint or stain is used, always check the label of the product, and follow manufacturer's instructions.
- Protim Micro treated timber can be coated with most industrial alkyd-based joinery primers once the solvent carrier has evaporated after treatment. To achieve a durable finish after installation, the subsequent on-site preparation and top coating should be as recommended by the coating manufacturer. Certain acrylic primers are not compatible with timber treated with solvent based carrier used with Protim Micro. If acrylic primers are to be used, it is advisable to contact the paint supplier for specific advice before application.

Contact Details

Manufacture location	New Zealand / Aotearoa
Legal and trading name of manufacturer(s)	North Sawn Lumber Ltd
Manufacturer address for service	458 Marsden Point Road, PO Box 7, Ruakaka
Manufacturer website	www.nslumber.co.nz
Manufacturer email	info@nslumber.co.nz
Manufacturer phone number	02 7574 3394
Manufacturer NZBN	9429035559368

Documentation

- CodeMark Product Certificate North Sawn Timber
  CodeMark Certificate | North Sawn Lumber | Pine Lumber NZ (nslumber.co.nz)
  CodeRight Dryframe Protim Micro Structural Timber

- Coderight Dryframe Protim Micro Information Sheet
  coderight-dryframe-protim-micro-installation-manual-v1.1-rev.pdf (nslumber.co.nz)
  Installation Manual

- NZ Timber Preservation Council Inc
  NZ Timber Preservation Council (nztpc.co.nz)
  Timber Preservation Information

- Verified Timber
  https://www.verifiedtimber.co.nz/
  Structural Timber Information

- Asure Quality
  Forestry & Timber Certification – AsureQuality
  Forestry Timber Certification

- Building Performance
  https://www.building.govt.nz/building...
  Certification Design Maintenance

- Koppers FramePro Brochure
  https://www.kopperspc.co.nz/resources/sds.html
  https://www.kopperspc.co.nz/pdfs/Koppers_NZ_Warranty.pdf
  Maintenance Test results/resources/warranty

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- Grade Right NZ Ltd Grade Verified Information
  https://www.graderight.co.nz/home/
  Certification Installation Test results