

Osmose Guide to the Hazard Class System & TIMBER PRESERVATION options in New Zealand

Preservative System	Key Features	Key Benefits	Limited Guarantee*
Lifewood® CCA (H1-H6) Chromated copper arsenate	- Water carrier. - Proven durability in harshest conditions. - Fungicide and Insecticide.	- Economical. - Reliability & confidence. - Proven resistance to fungal decay and insect attack.	50 years
NatureWood®ACC® (H1-H5) Alkaline copper quat	- Copper based preservative. - Water carrier. - Long term protection in all conditions. (except H6) - Fungicide and Insecticide.	- Alternative system for above and in ground contact. - Proven durability. - Proven resistance to fungal decay and insect attack.	50 years
Protim® LOSP H1.1 Permethrin	- Light Organic Solvent Preservative. - Insecticide.	- Used for preservation of timber where kiln dried product of exacting dimensions is required. - Proven resistance to borer attack.	25 years
Protim® FramePlus™ (H1.2) IPBC + Permethrin	- Light Organic Solvent Preservative. - Fungicide and Insecticide.	- Used for preservation of timber where kiln dried product of exacting dimensions is required. - Proven resistance to fungal decay and borer attack.	5-15 years
Protim® LOSP H3.1 (available in three formulations as set out below). TBTN + Permethrin (Can be used for domestic use and timber exports to Australia [H3 - AS1604]). TBTO	- Light Organic Solvent Preservative. - Fungicide and Insecticide. - Fungicide. - Light Organic Solvent Preservative. - Fungicide and Insecticide.	- Used for preservation of timber where kiln dried product of exacting dimensions is required. - Proven resistance to fungal decay and termite attack. - Proven resistance to fungal decay and borer attack.	25 years
Protim® Optimum™ (H3.1) Propiconazole + tebuconazole + Permethrin (Can be used for domestic use and timber exports to Australia [H3 - AS1604]).	- Light Organic Solvent Preservative. - Fungicide and Insecticide.	- Used for preservation of timber where kiln dried product of exacting dimensions is required. - Proven resistance to fungal decay and insect attack.	25 years
Liquid Boron™ (H1.1/H1.2/H3.1) Boron FramePro™ (H1.1/ H3.1) Boron and benzalkonium chloride	- Water carrier. - Fungicide and Insecticide. - Can be applied by modified low uptake vac/pressure process (Aqualite) to dry framing timbers.	- Economical. - Proven resistance to fungal decay and insect attack. - No significant change in dimension and moisture content. - No significant effect on the properties of timber.	5-15 years

* See separate limited guarantee document for more details
 Note: Refer to the New Zealand Standard 3640:2003 for detailed information.

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Hazard Class 1.1

Exposure: Protected from the weather, above ground
Conditions: Protected from the weather, always dry
Biological Hazard: Borers
Typical Uses: Interior finishing timber - see NZS3602

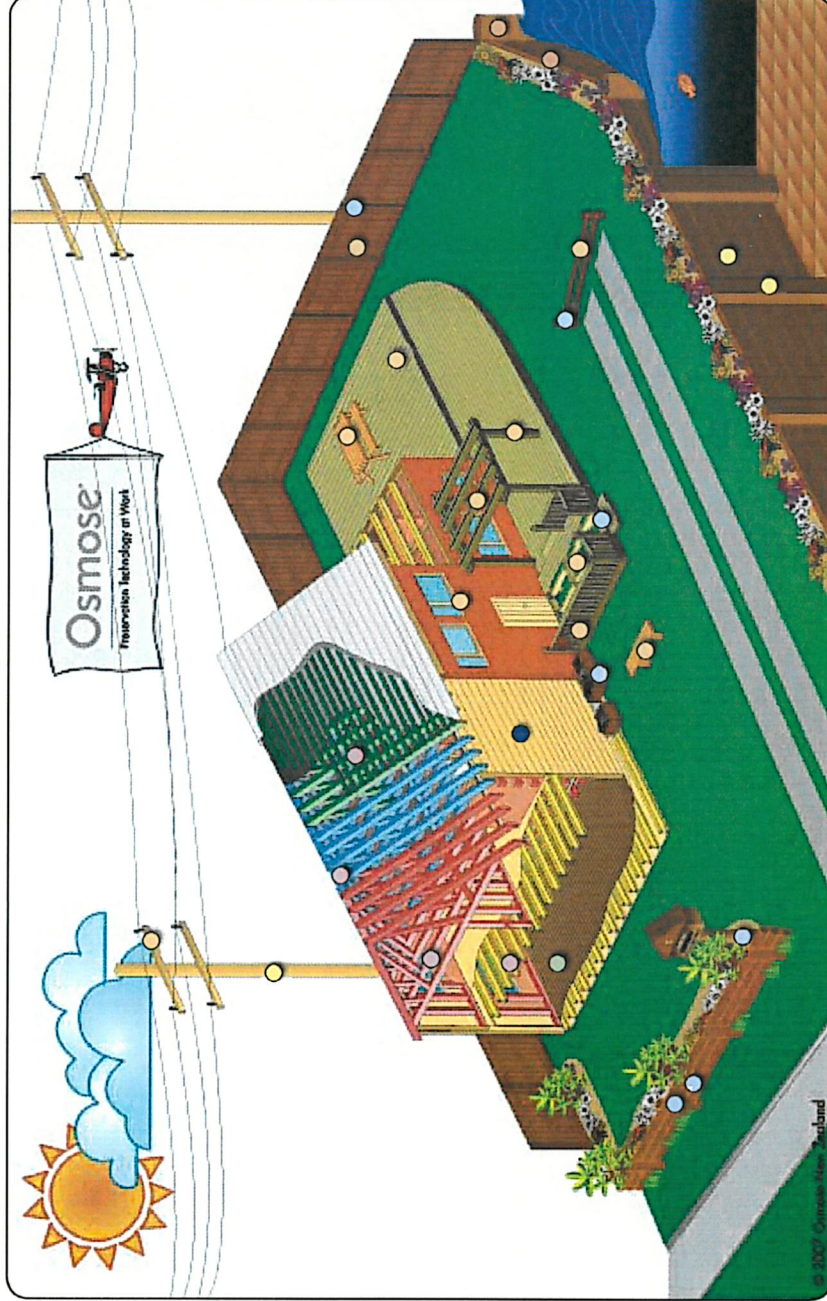
Hazard Class 1.2

Exposure: Protected from the weather, above ground, but with a possibility of exposure to moisture
Conditions: Protected from the weather, but with a risk of moisture content conducive to decay.
Biological Hazard: Borers, decay
Typical Uses: Wall framing - see NZS3602

Hazard Class 3.1

Exposure: Exposed to the weather, above ground
Conditions: Periodic wetting, not in contact with the ground
Biological Hazard: Decay fungi and borers
Typical Uses: Cladding, fascia, joinery - see NZS3602

Guide to the New Zealand Hazard Class System



PLEASE NOTE:

The illustration on this page is not a specification guide; its main purpose is to depict the various Hazard Classes as noted in NZS3640. The three different colors (Red, Blue and Green) shown on the internal framing timbers, simply indicate that there are different coloured eyes used to identify various timber preservation systems in Hazard classes H1.2 and H3.1. In some cases it is acceptable to use untreated framing timber and roof trusses. Please refer to NZS3602 for more detailed information.

Colour coding for treated timber to be used as framing:

H1.2	Protim® FramePlus™ Liquid Boron™ / FramePro™	Blue Pink
H3.1	Protim® Optimum™ / Protim® LOSP H3.1	No colour added or Green
	Boron	Grey (Paint)

Approved Osmose Preservative Systems

(see back page for details)

Hazard Class	CCA	ACQ	Protim® H1.1	Protim® FramePlus™ / FramePro™	Protim® H3.1	Protim® Optimum™	FramePro™ Liquid Boron™
H1.1	✓	✓	✓	✓	✓	✓	✓
H1.2	✓	✓	✓	✓	✓	✓	✓
H3.1	✓	✓	✓	✓	✓	✓	✓
H3.2	✓	✓	✓	✓	✓	✓	✓
H4	✓	✓	✓	✓	✓	✓	✓
H5	✓	✓	✓	✓	✓	✓	✓
H6	✓	✓	✓	✓	✓	✓	✓

Hazard Class 3.2

Exposure: Exposed to the weather, above ground, or protected from the weather but with a risk of moisture entrapment
Conditions: Periodic wetting, not in contact with the ground, more critical end uses
Biological Hazard: Decay fungi and borers
Typical Uses: All H3.1 uses, plus structural uses and decking - see NZS3602

Hazard Class 4

Exposure: Exposed to the weather, inground or fresh water
Conditions: Ground contact, or conditions of severe or continuous wetting
Biological Hazard: Decay fungi and borers
Typical Uses: Fence posts, landscaping timbers

Hazard Class 5

Exposure: Exposed to the weather, inground or in fresh water
Conditions: Ground contact, or conditions of severe or continuous wetting, where uses are critical and where a higher level of protection than H4 is required
Biological Hazard: Decay fungi and borers
Typical Uses: House piles and poles, crib walling

Hazard Class 6

Exposure: Sea water or estuarine ground
Conditions: Immersion in seawater or estuarine ground
Biological Hazard: Marine wood borers and decay
Typical Uses: Marine timber and piles