

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® ACQ® (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).	- Light Organic Solvent Preservative.	- Used for preservation of timber where kiln dried product of exacting dimensions is required.	25 years 
TBTN + Permethrin (Can be used for domestic use and timber exports to Australia (H3 - AS1604)).	- Fungicide and Insecticide.	- Proven resistance to fungal decay and termite attack.	
TBTO	- Fungicide.	- Proven resistance to fungal decay and borer attack.	
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	- Water carrier. - Fungicide and Insecticide.	- Economical. - Proven resistance to fungal decay and insect attack.	5-15 years 
FramePro™ (H1.1/ H3.1) Boron and benzalkonium chloride	- Can be applied by modified low uptake vac/pressure process (Aqualite) to dry framing timbers.	- No significant change in dimension and moisture content. - No significant effect on the properties of timber.	

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

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

Osmose®
Preservation Technology at Work

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

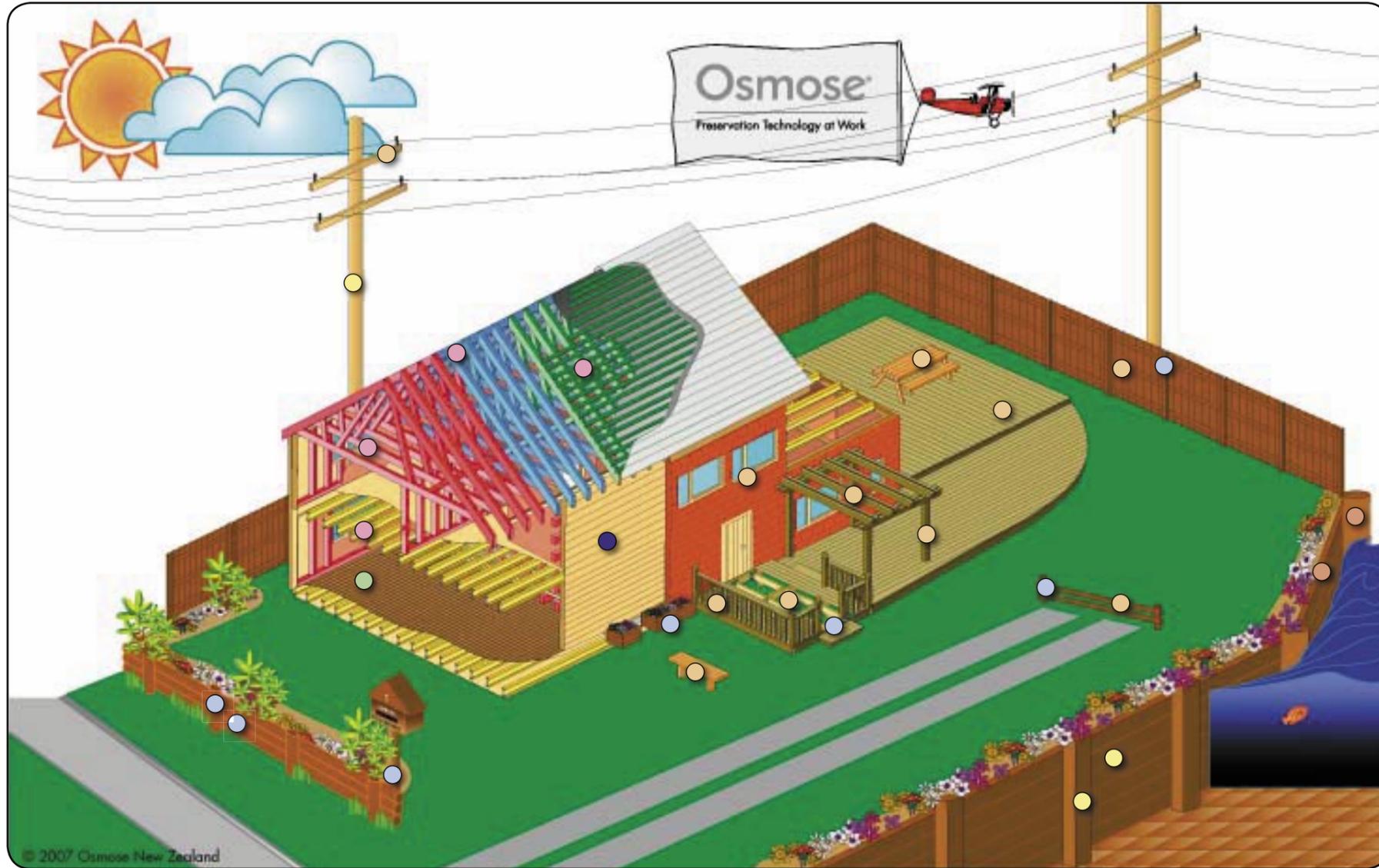
PLEASE NOTE:

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

Guide to the New Zealand Hazard Class System



Hazard Class	Approved Osmose Preservative Systems (see back page for details)							
	CCA	ACQ®	Protim® H1.1	Protim® FramePlus™	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