



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

### Hazard Class 1 - ABOVE GROUND

**Conditions:** Completely protected from the weather and well-ventilated.  
**Biological Hazard:** Lyctid borers.  
**Examples:** Susceptible framing, flooring, furniture and interior joinery.

### Hazard Class 2 - ABOVE GROUND

**Conditions:** Protected from wetting.  
**Biological Hazard:** Borers including termites.  
**Examples:** Framing, flooring and similar, used in dry situations.

### Hazard Class 3 - ABOVE GROUND

**Conditions:** Subject to periodic wetting.  
**Biological Hazard:** Moderate decay fungi, borers and termites.  
**Examples:** Weatherboard, fascia, pergola's (above ground), window joinery, framing, decking\*\* and laminated verandah posts.

**PLEASE NOTE:**

The illustration on this page is not a specification guide; its purpose is to depict the various treated timber Hazard Classes as noted in AS1604.

The Blue colour shown on some of the internal framing depicts "Blue" termite resistant timber framing treated with DeterMite. "Blue" termite resistant timber framing is restricted for use South of the Tropic of Capricorn only. The "Red" looking internal timber depicts framing treated with PROTIM LOSP H2.

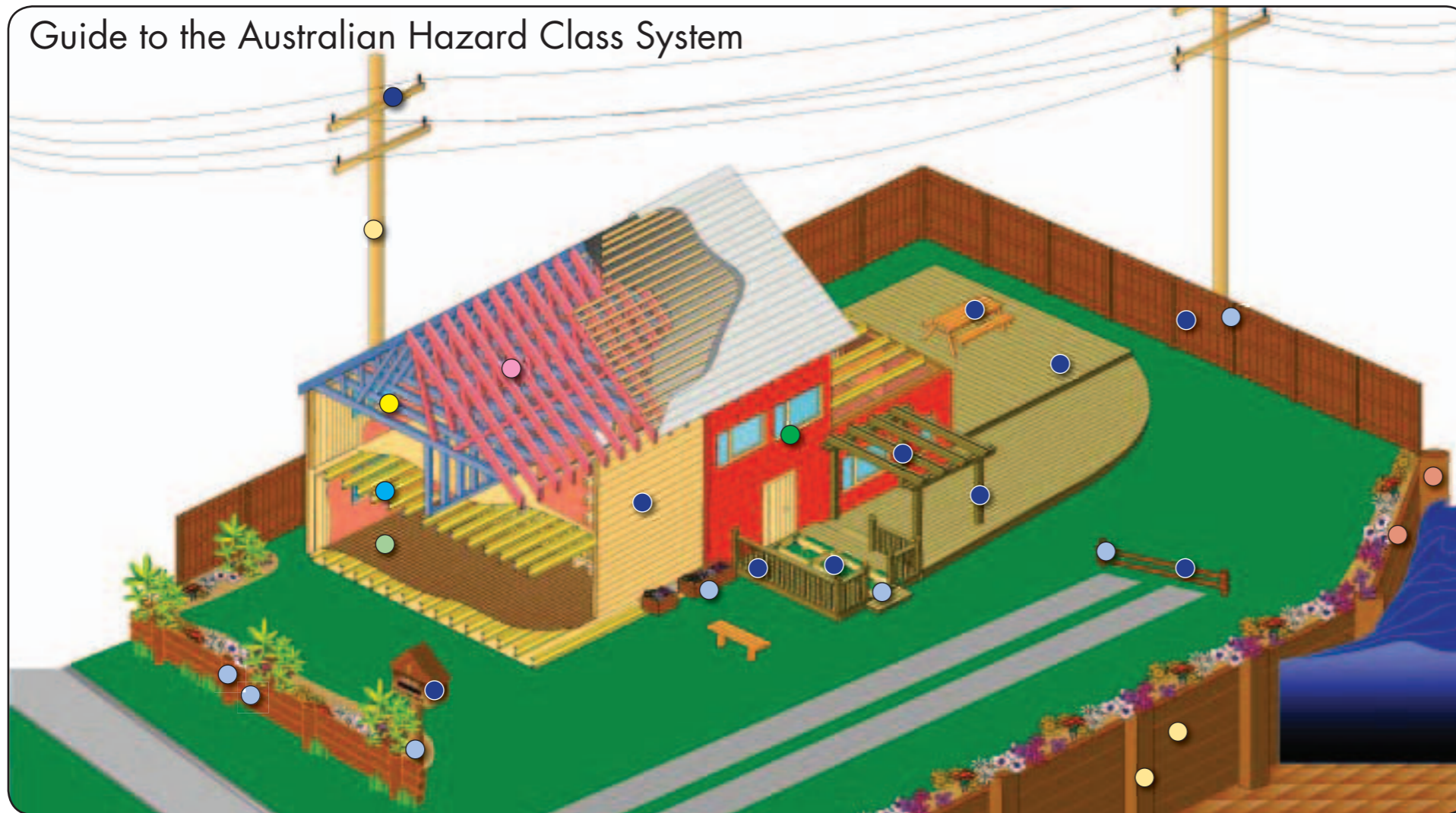
### Hazard Class 2(F) - ABOVE GROUND

Conditions and Biological hazard as for H2 although approved for use South of the Tropic of Capricorn only. Example: Framing (envelope treatment).

### Hazard Class 2(S) - ABOVE GROUND

Conditions and Biological hazard as for H2 although approved for use South of the Tropic of Capricorn only. Example: LVL/plywood (glue-line treatment).

## Guide to the Australian Hazard Class System



| Hazard Class | Approved Osmose Preservative Systems<br>(see back page for details) |      |            |            |            |                  |                    |           |               |
|--------------|---|------|------------|------------|------------|------------------|--------------------|-----------|---------------|
|              | CCA   | ACQ® | Protim® H1 | Protim® H2 | Protim® H3 | Protim® Optimum™ | DeterMite® H2F/H2S | Inshield™ | Liquid Boron™ |
| H1           | ✓   | ✓    | ✓          | ✓          | ✓          | ✓                |                    | ✓         | ✓             |
| H2           | ✓   | ✓    |            | ✓          | ✓          | ✓                |                    | ✓         |               |
| H2F          |   |      |            |            |            |                  | ✓                  |           |               |
| H2S          |   |      |            |            |            |                  | ✓                  |           |               |
| H3**         | ✓   | ✓    |            |            | ✓          | ✓                |                    |           |               |
| H3A*         | ✓   | ✓    |            |            | ✓          |                  |                    |           |               |
| H4           | ✓   | ✓    |            |            |            |                  |                    |           |               |
| H5           | ✓   | ✓    |            |            |            |                  |                    |           |               |
| H6           | ✓   |      |            |            |            |                  |                    |           |               |

\* Please note: Refer to the complete standards for more detailed information as per AS1604 and NSW TMA \*\* Please note: CCA treated timber has some limitations to its use within the Australian market. CCA treated timber cannot be used for garden furniture, picnic tables, exterior seating, children's play equipment, patio and domestic decking, and hand rails. Alternative treatments such as NatureWood ACQ® and Protim® Optimum are registered for use in these applications. Osmose recommends either of these preservative options as suitable alternatives.

### Hazard Class 3(A)\* - ABOVE GROUND

**Conditions:** Products predominantly in verticle exposed situations and intended to have the supplementary paint coat system that is regularly maintained.  
**Biological Hazard:** Moderate decay fungi, borers and termites.  
**Examples:** Fascia, barge boards, exterior cladding, window joinery, door joinery and non-laminated verandah posts.

### Hazard Class 4 - IN GROUND











**Conditions:** Subject to severe wetting.  
**Biological Hazard:** Severe decay fungi, borers and termites.  
**Examples:** Fence posts, garden walls less than 1m high, greenhouses, posts and landscaping timbers.

### Hazard Class 5 - IN GROUND

**Conditions:** Subject to extreme wetting and/or where the critical use requires a higher degree of protection.  
**Biological Hazard:** Very severe decay fungi, borers and termites.  
**Examples:** Retaining walls, piling, house stumps, building poles and cooling tower fill.

### Hazard Class 6 - MARINE EXPOSURE

**Conditions:** Subject to prolonged immersion in sea water.  
**Biological Hazard:** Marine wood borers and decay fungi.  
**Examples:** Boat hulls, marine piles, jetty cross-bracing, landing steps and similar.

| Preservative System   | Key Features   | Key Benefits Guarantee*  | Limited   |
|---|--|--|---|
| <b>LifeWood CCA** (H1-H6)</b><br>Chromated copper arsenate  | <ul style="list-style-type: none"> <li>- Water carrier.</li> <li>- Proven durability in harshest conditions.</li> <li>- Fungicide and Insecticide.</li> </ul>  | <ul style="list-style-type: none"> <li>- Reliability &amp; confidence.</li> <li>- Proven resistance to fungal decay and insect attack.</li> </ul>  | 50 years<br>   |
| <b>NatureWood ACQ (H1-H5)</b><br>Alkaline copper quat   | <ul style="list-style-type: none"> <li>- Copper based preservative.</li> <li>- Water carrier.</li> <li>- Long term protection in hazard classes H1- H5.</li> <li>- Fungicide and Insecticide.</li> </ul> | <ul style="list-style-type: none"> <li>- Alternative system for above and below ground contact.</li> <li>- Proven durability.</li> <li>- Proven resistance to fungal decay and insect attack.</li> </ul>         | 50 years<br>   |
| <b>Protim LOSP H1</b><br>Permethrin   | <ul style="list-style-type: none"> <li>- Light Organic Solvent Preservative.</li> <li>- Insecticide.</li> </ul>  | <ul style="list-style-type: none"> <li>- Used for preservation of timber where kiln dried product of exacting dimensions is required.</li> <li>- Proven resistance to insect attack.</li> </ul>                  | 25 years<br>   |
| <b>Protim LOSP H2</b><br>Permethrin   | <ul style="list-style-type: none"> <li>- Light Organic Solvent Preservative.</li> <li>- Insecticide.</li> </ul>  | <ul style="list-style-type: none"> <li>- Used for preservation of timber where kiln dried product of exacting dimensions is required.</li> <li>- Proven resistance to termite attack.</li> </ul>                 | 25 years<br>  |
| <b>Protim LOSP H3</b><br>TBTN + Permethrin<br><br><b>Protim Optimum (H3)</b><br>Propiconazole + Tebuconazole + Permethrin | <ul style="list-style-type: none"> <li>- Light Organic Solvent Preservative.</li> <li>- Fungicide and Insecticide.</li> </ul>  | <ul style="list-style-type: none"> <li>- Used for preservation of timber where kiln dried product of exacting dimensions is required.</li> <li>- Proven resistance to fungal decay and insect attack.</li> </ul> | 25 years<br>  |
| <b>DeterMite (H2F/H2S)</b><br>Bifenthrin  | <ul style="list-style-type: none"> <li>- Water carrier.</li> <li>- Spray or glueline.</li> <li>- Repellency effect.</li> <li>- Insecticide.</li> </ul>   | <ul style="list-style-type: none"> <li>- Proven performance South of the Tropic of Capricorn.</li> <li>- Proven resistance to termite attack.</li> </ul>   | 25 years<br>  |
| <b>Inshield (H1-H2)</b><br>Permethrin   | <ul style="list-style-type: none"> <li>- Water carrier.</li> <li>- Clear colour.</li> <li>- Insecticide.</li> </ul>  | <ul style="list-style-type: none"> <li>- Used for preservation of high value timber flooring.</li> <li>- Proven resistance to insect attack.</li> </ul>  |    |
| <b>Liquid Boron (H1)</b><br>Boron   | <ul style="list-style-type: none"> <li>- Water carrier.</li> <li>- Fungicide and Insecticide.</li> </ul>   | <ul style="list-style-type: none"> <li>- Proven resistance to insect attack (excluding termites).</li> </ul>   |    |

\* See separate limited guarantee document for more details.

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