The wood preservation standards –
current and planned revisions

Dr. Harry Greaves
The main preservation Standards (1)

AS/NZS 1604 series Specification for preservative treatment

AS1604.1-2010  Part 1: Sawn and round timber
AS/NZS1604.2-2010  Part 2: Reconstituted wood-based products
AS/NZS1604.3-2010  Part 3: Plywood
AS/NZS1604.4-2010  Part 4: Laminated veneer lumber (LVL)
AS/NZS1604.5-2010  Part 5: Glued laminated timber products
The main preservation Standards (2)

AS/NZS 1605:2006 Methods for sampling and analysing timber preservatives and preservative-treated timber

AS/NZS 2843:2006 Timber preservation plants
  Part 1 Timber preservation plant site design
  Part 2 Treatment area operation

AS 5604:2005 Timber – Natural durability ratings

AS 5605:2007 Guide to the safe use of preservative-treated timber
A reminder of some important features of AS/NZS1604 series:

- Hazard Classes
- Penetration and retention requirements
- Preservative formulation details
- Marking and certificate of treatment
AS 1604 Hazard Classes:

H1  Inside above ground  Lyctids
H2  Inside above ground  Borers and termites
H3  Outside above ground  Moderate decay, termites
H4  Outside in ground  Severe decay, borers, termites
H5  In ground contact, with or in fresh water  Very severe decay, borers, termites
H6  Marine water exposure  Marine wood borers, decay
## AS/NZS 1604: Marking requirements

### Layout of Brands

<table>
<thead>
<tr>
<th>TREATMENT</th>
<th>PRESERVATIVE</th>
<th>HAZARD CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLANT NUMBER</td>
<td>NUMBER</td>
<td>NUMBER</td>
</tr>
<tr>
<td>099</td>
<td>10</td>
<td>H4</td>
</tr>
</tbody>
</table>
AS/NZS 1604: examples of brand layout
Legible and “sufficiently permanently marked”
Summary of the main proposed changes to the current AS/NZS 1604 series

- Additional solvent for LOSPs
- Additional formulation listings and applications
- Glueline treatment for plywood and LVL for use in New Zealand (H1.2)
- Surface applied insecticides for softwood plywood and LVL for H2
- Outer veneer treated plywood and LVL for H2
- Water-borne azole treatment for plywood and LVL for H3
- Glueline + face veneer treatment for 4.8mm thick softwood veneers
- Marking clarifications
- Definitions modifications
- Additional preservative numbers
Global changes to AS/NZS 1604 series

Require preservatives listed to be used only in approved treatment plants as defined in AS/NZS 2843

Add copper azole for H2 treatment

Add water-borne azole for H3 treatment

Re-define copper azole compounds (preservatives No. 58 & 68)

Express formulation elements as actives not ratios

Delete reference to TUMA

Re-define clause “Use in New Zealand”
Proposed changes to AS 1604.1

Add copper azole for H5 hardwood treatment

Modify Appendix B: re-define copper azole; add thiacloprid, triadimefon and cyproconazole; add tebuconazole + propiconazole + permethrin; add kerosene to solvent list; and include the use of tracers

Amend Table C1 Preservative numbers: 58 copper + tebuconazole; 60 imidacloprid for H2F and H2 outer veneer treatment; 66 triadimefon + cyproconazole; 68 copper + tebuconazole + propiconazole; 75 bifenthrin for H2F and surface veneer treatment; 76 thiacloprid

Amend Figure C1 Flow chart

Modify Table D1 Guide to Hazard Classifications
Proposed changes to AS/NZS 1604.2

Add copper azole for H2

Add waterborne azole formulation for H3

Delete propiconazole + tebuconazole + permethrin
Proposed changes to AS/NZS 1604.3/4 (1)

Add glueline treatment for use in New Zealand (H1.2):

Triadimefon + Cyproconazole in the glueline and as a surface treatment
Proposed changes to AS/NZS 1604.3/4 (2)

Softwood product for use south of the Tropic of Capricorn:

1. Add thiacloprid glueline treatment only

2. Surface applied envelope of bifenthrin for H2 where the lesser cross-section dimension is equal to or less than 95 mm

3. Outer veneer treatment of imidacloprid for H2 where the maximum product thickness is 28 mm
Option for AS/NZS 1604.4 (2a)

For H2 LVL products, merge the proposed surface applied envelope of bifenthrin (0.02% m/m) and the proposed outer veneer treatment of imidacloprid (0.0136% m/m) into one defined requirement, as follows:

3.2.2 Outer surface treated laminated veneer lumber (LVL) to be used south of the Tropic of Capricorn

This Clause applies to laminated veneer lumber (LVL) where the cross section area is not greater than 10,800 mm$^2$ .......

Chairman’s suggestion: 34,000 mm$^2$
Proposed changes to AS/NZS 1604.3/4 (3)

4. Add waterborne propiconazole + tebuconazole + permethrin for H3

5. Add bifenthrin as LOSP treatment for H3

6. Add copper azole for H2 and hardwood veneers for H5

7. Add penetration pattern code “O”
Option for AS/NZS 1604.4 (3a)

Add penetration pattern code “O” for outer surface treatment for H2 product for use south of the Tropic of Capricorn

Chairman’s suggestion: use of this penetration code should be optional, given the current requirement to brand product H2 South of the Tropic of Capricorn.

Note that the preservative number (60 or 75) in the brand will tell the analytical service providers what penetration pattern has been used.
Proposed changes to AS/NZS 1604.5

Add copper azole for H2

Add waterborne propiconazole + tebuconazole + permethrin for H3
Proposed changes to AS/NZS 1604 series:

Sufficiently numerous / detailed / new to constitute a revision

AS/NZS 1604 series estimated to be published as the 2012 revision towards the end of September