

## Changes to H3.1 for solid timber framing

In 2003, the review of NZS 3640 (Chemical preservation of Round and Sawn Timber) split H3 into H3.1 and H3.2. H3.1 was developed as a dedicated “cladding treatment” class, and H3.2 continued for external structural timber not in ground contact.

H3.1 was adopted in 2003 for some enclosed framing use; however, in 2011 this was discontinued under B2/AS1 when all framing was cited as H1.2 (except for H3.2 cantilevered deck joists). The discontinuance of H3.1 as a framing treatment allows it to revert to its original purpose as a cladding treatment class.

B2/AS1 reinforces this in its 2014 amendment which states, under 3.2.3:

...Timber used for structural purposes is required to be durable in-service for the life of the building, being not less than 50 years unless.... This is applicable to H1.2, H3.2, H4, H5, and H6....Timber used for non-structural purposes, such as H1.1 and H3.1 is required to be durable in-service for a minimum of 5 years and 15 years respectively.

- H3.1 is no longer an Acceptable Solution for solid structural framing
- H1.2 or H3.2 is required for enclosed framing under B2/AS1

### Comment

NZS 3640:2012, cited in B2/AS1, has an expanded range of H1.2 treatments comprising boron plus most of the azole based treatments from H3.1. These H1.2 azoles are only available as water-based, not solvent (LOSP), and have a slightly higher concentration than for H3.1. Those wishing to continue using azoles for framing can now do so under H1.2 without recourse to H3.1 and without involving solvents. H3.1 continues as a dedicated cladding class, and retains the azole-based treatments (and others) as both solvent (LOSP) and water-based options. Reinstating H3.1 as a cladding class allows for possible development of dedicated cladding treatments in the future.

Treatment options in B2/AS1 for Framing and cladding (Solid timber) - taken from NZS 3640:2012			
Class	Use	Treatment	Carrier
H1.2	Framing class	Boron	Water
		Azoles - propiconazole and tebuconazole	Water
H3.1	Cladding class	CCA	Water
		Copper Azole	Water
		Boron	Water
		Azoles - propiconazole and tebuconazole	Water
		Azoles - propiconazole and tebuconazole	Solvent
		CuN	Solvent
		TBTN, TBTO	Solvent