

INFORMATION SHEET

FIRE



REACTION TO FIRE – EXTERNAL CLADDING

The information provided below has been taken from the New Zealand Timber Design Guide 2007, published by the Timber Industry Federation and edited by Professor A H Buchanan. To purchase a copy of the Timber Design Guide, visit www.nztif.co.nz

The NZBC compliance document for fire safety contains provisions to ensure that external cladding materials do not promote rapid vertical façade spread.

This applies both for buildings located close to a boundary and for some multi-storey buildings (depending on building height and use) where uncontrolled vertical fire spread is undesirable.

The Acceptable Solution in the Compliance Document allows two options for determining acceptable fire spread properties for external claddings.

The first is an acceptable result of a cladding system in a full-scale façade fire test such as NFPA 285.

The second is a classification based on small-scale cone calorimeter results to AS/NZS 3837.

Timber products not treated with fire retardant are generally unable to meet these requirements and are therefore rarely used for these applications.

Applications where non-fire-treated timber products may be used as cladding material are shown below.

Applications where non fire retardant treated timber products are acceptable as cladding (derived from C/AS1 Table 7.5).

	Distance to relevant boundary		
	Less than 1 metre	1 metre or more	
Building Height	All purpose groups	Sleeping occupancy	Other purpose groups
Single-storey	No	Yes	Yes
Up to 7metres		No	Yes
Up to 25 metres			Yes (sprinklered buildings)
Over 25 metres			No