



## Fire Behaviour

Fire resistance relates to the period for which an element of construction will resist the passage of flame, remain free from collapse and insulate against an excessive temperature rise on the unexposed face. The property relates to a building element and detail of its construction, rather than a particular material.

All wood panels generally react to fire in the same manner as natural timber. The rate of burning or charring is similar for equivalent density and they do not shatter or delaminate.

All reconstituted wood panels are combustible. As with natural timber, burning will be limited by charring on the surface but shrinkage will tend to cause shrinkage at the joints unless proper consideration has been given to the design.

Fire hazards indices for wood panels are given in Table 13.

The degree of hazard depends on the type of density of the board and any surface treatment. The ranges tabled cover the variations of board types of a particular product. Early Fire Hazards Indices can be improved by additives to raw material, surface treatment and coatings.

**TABLE 13 FIRE HAZARDS INDICES**

Test	Range	Particle board	FT* Board	MDF	Hardboard
Ignitibility	0-20	14-15	14	15	14
Spread of Flame	0-10	6-7	0	7-8	7
Heat Evolved	0-10	6-7	3	6-9	7
Smoke Developed	0-10	2-3	2	3-5	2-3
Reference	See References	(5)	(6)	(7)	(8)

**Fire retardant treated particleboard is increasingly specified for commercial applications.  
Note pink core identification for fire retardant treatment.**

Heat and Smoke release Test to AS / NZS 3837.1998  
Standard MDF

### Alpine

Average heat release	84 KW/m <sup>2</sup>
Average Sp Extinction area	72 m <sup>2</sup> /kg
BCA Group Classification	3

*\*This covers LFE, MR, and EO/MR*