



BUSHFIRE ATTACK LEVEL (BAL) SPECIFICATIONS

VER: 1.0

Hume Doors is able to supply special manufacture doors and entry frames to suit certain bushfire attack levels (BAL) as per standard AS3959-09.

Listed below is the six categories and predicted risk levels.



Very Low Risk

There is insufficient risk to warrant specific construction requirements

No specific requirements



Low Risk

Ember attack

Windows: minimum 4mm Grade A safety glass or glass blocks with openable portion screened

Doors: side hung doors as for windows, sliding doors must comply with AS 1288

Roof penetrations: Grade A laminated safety glass OR polymer with a Grade A safety glass diffuser installed under the glazing. For IGUs, minimum 4mm Grade A safety glass must be used in the outer pane



Moderate Risk

Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5 and 19kW m²

Windows: minimum 5mm toughened glass with openable portions screened or glass blocks OR annealed glass completely screened

Doors: minimum 6mm toughened glass

Roof penetrations: as for BAL-12.5



High Risk

Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19 and 29 kW m²

Windows: minimum 5mm toughened glass with openable portions and portions within 400mm of the ground, or similar to be screened

Doors: side hung doors to have minimum 6mm toughened glass and glazed portions within 400mm of the ground, to be screened and sliding doors minimum 6mm toughened glass completely screened

Roof penetrations: as for BAL12.5. Glazed roof penetrations in roofs with a pitch of less than 18 degrees to the horizontal must be protected by ember guards (mesh specifications as for windows).



Very High Risk

Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames.

Windows: minimum 6mm toughened glass completely screened

Doors: side hung doors must be minimum 6mm toughened glass and portions within 400mm of the ground or similar screened, sliding doors to have a fire resistance level (FRL, as defined in the BCa) of at least 30 minutes integrity only (-/30/-) OR completely screened

Roof penetrations: Glazed assemblies for roof penetrations must have a FRL of (-/30/-). Glazed roof penetrations in roofs with a pitch of less than 18 degrees to the horizontal must be protected by ember guards (mesh specifications as for windows)



Extreme Risk

Direct exposure to flames from fire front in addition to heat flux and ember attack.

Windows: protected by a bushfire shutter PR openable portion screened and either FRL or at least 30 min-utes integrity only (-/30/-) for the whole window system, or tested to comply with AS 1530.82

Doors: as for windows

Roof penetrations: must have FRL of (30/30/30 or (-/30/30) when tested from the outside OR tested to comply with AS 1530.8.2