

AGGA TECHNICAL FACT SHEET

GLAZING REQUIREMENTS IN BUSHFIRE ZONES

This document provides you with a brief outline of the glass and window requirements of AS3959:2009 "Construction of buildings in bushfire-prone areas".

AS3959:2009 contains much more information than is provided here and before making any decision on what is the most appropriate course of action for you, AS3959 should be consulted. This cannot be overstated; bushfires are a serious threat to life and property and the use of the appropriate construction technique could help save both.

Construction specifications for buildings are required to reflect their location's assessed level of bushfire exposure. AS3959 sets out these construction requirements, including those for glazed elements, according to a site's BAL (Bushfire Attack Level). BAL levels are obtainable through the local Council or Bushfire Authority.

All screens must be mesh with apertures no larger than 2mm. For buildings with a risk level of BAL-12.5 to BAL-29, screens may be made of aluminium, steel or bronze. For homes on a site designated BAL-40 or BAL-FZ, screens must be steel or bronze only.

For Insulated Glass Units only the external pane need comply with the glass requirements.

Glazing requirements for external windows, doors and roof lights

BAL-LOW - No specific requirements.

BAL - 12.5

Windows: Minimum 4mm Grade A safety glass or glass blocks with openable segments screened.

Doors: Side hung doors as for windows, sliding doors must comply with AS1288.

Roof Lights: Grade A laminated safety glass. Where polymer is used is must include provision for a Grade A laminated diffuser.

BAL-19

Windows: A minimum of 5mm toughened glass shall be used with openable segments screened or glass blocks as an alternative are permitted.

Doors: Minimum 5mm toughened glass.

Roof Lights: as for BAL - 12.5.

BAL-29

Windows: A minimum of 5mm toughened glass. Openable segments and segments within 400mm of the ground or similar screened.

Doors: All hinged doors to have a minimum of 5mm toughened glass with segments that are within 400mm of the ground or similar screened. Sliding doors shall be a minimum of 6mm toughened glass OR shall be completely screened.

Roof Lights: as for BAL - 12.5. 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).

BAL-40

Windows: A minimum 6mm toughened glass shall be used and completely screened.

Doors: All hinged doors must use a minimum of 6mm toughened glass with areas within 400mm of the ground or similar screened.

Roof Lights: Glazed assemblies for roof penetrations must have an 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).

BAL-FZ

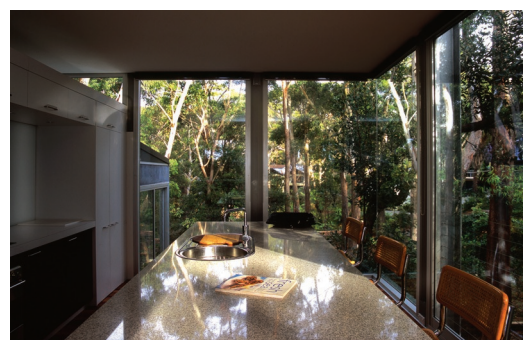
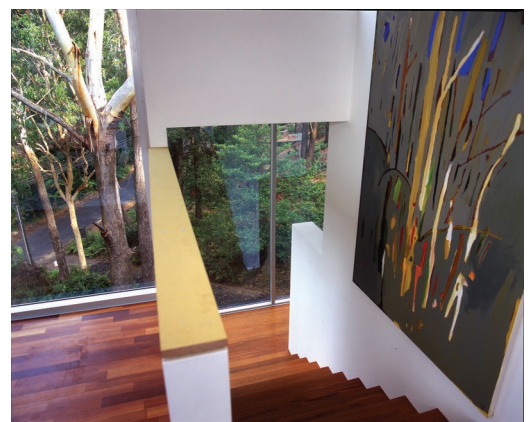
Windows: Shall be protected by a bushfire shutter, or, the openable segment screened and either: an FRL of at least 30 minutes integrity only (-/30/-) for the whole window system, or, tested to comply with AS 1530.8.2Doors: as for windows.

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

Alternative options: testing to AS1530

Any materials tested to and achieving the requirements of AS 1530 may be used in lieu of the applicable requirements of the relevant BAL. Testing may result in the need for the glazing to have no screening for ember protection on the fixed windows. Screening on the openable parts of the windows and doors will still be required.

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Disclaimer: The information provided in this document is current at the time of publication. It is intended as a general guide only and the AGGA recommends that you undertake your own investigations when specifying windows and glass products to ensure they comply with all relevant regulations and are fit for purpose.

