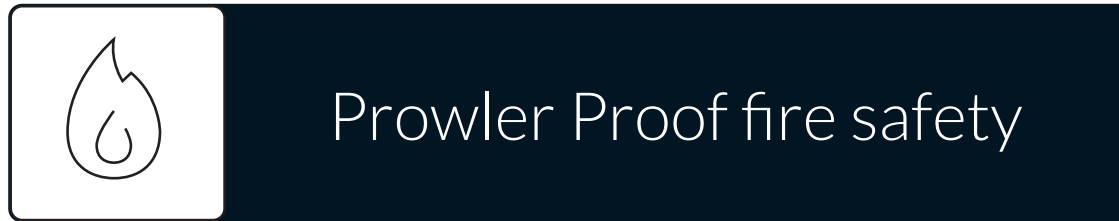


All you need to know...



Bushfire product guide

PRODUCT	BAL-LOW	BAL 12.5	BAL 19	BAL 29	BAL 40	BAL-FZ
ForceField®	✓	✓	✓	✓	✓	✓*
Protec	✓	✓	✓	✓	-	-
Guardian®	✓	✓	✓	✓	✓	-

✓ Product meets AS 3959 | - Product does not meet AS 3959

* Specific installation instructions

Bushfire Attack Levels

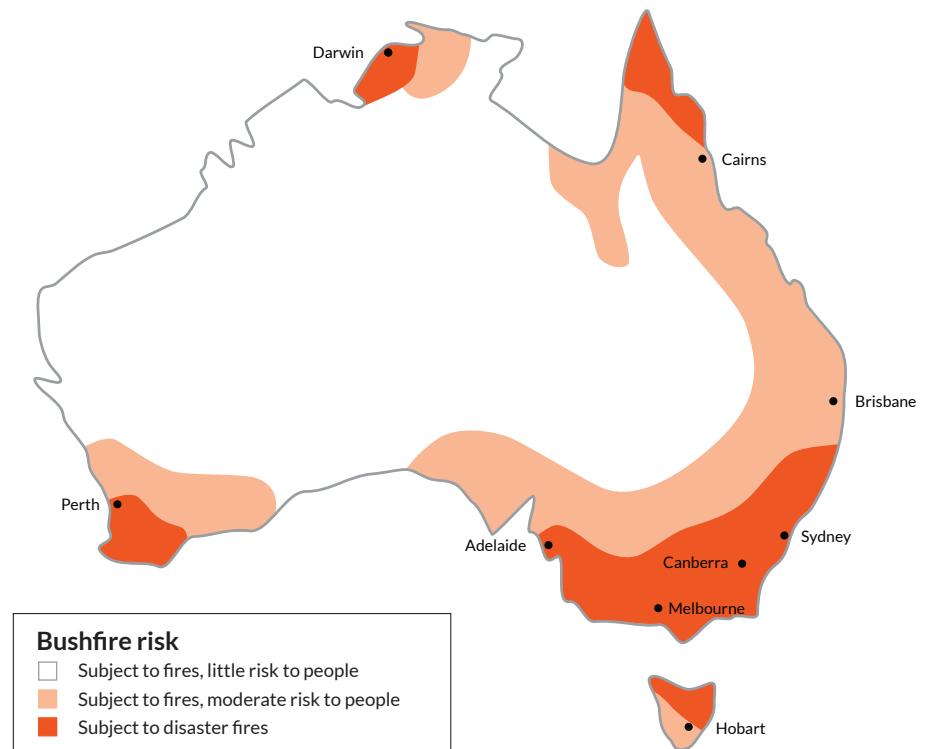
The Australian Standard 3959 (AS 3959) specifies six different bushfire intensity levels that a home may experience during a bushfire. These are referred to as Bushfire Attack Levels – or BAL's. Here's an overview...

BAL levels at a glance

BAL LEVEL	HEAT FLUX EXPOSURE	RISK LEVEL	DESCRIPTION
Low	-	Very low	Insufficient risk to warrant specific bushfire construction requirements
12.5	Up to 12.5 kW/m ²	Low	Risk of ember attack
19	Up to 19 kW/m ²	Moderate	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux
29	Up to 29 kW/m ²	High	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux
40	Up to 40 kW/m ²	Very high	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
Flame Zone	Over 40 kW/m ²	Extreme	Direct exposure to flames from fire front in addition to heat flux and ember attack

Bushfire prone areas

A bushfire prone area is an area of land that can support a bushfire or is likely to be subject to bushfire attack. Large parts of Australia are considered to be bushfire prone...for regional information please contact your local council.



Check your property with your local or state government to see what Bushfire Attack Level (BAL) you might be located in, most states have a website where you can look up your address and see if it's in a bushfire prone area.

Urban fire safety

Fires can happen anywhere, and high-density construction demands extra measures to help retain any fire and heat which may carry to adjacent buildings or areas of community risk.

When fire attenuation screens are required a Fire Engineer or Certifier needs to calculate the radiant heat flux for a specific building and check that screens can provide the safe level of reduction they are after.

Prowler Proof ForceField® security screens have been tested independently by the CSIRO (Commonwealth Scientific and Industrial Research Organisation) with results showing a superb radiant heat flux reduction.

If you require the CSIRO ForceField® security fire test report you can download a copy at www.prowlerproof.com.au.



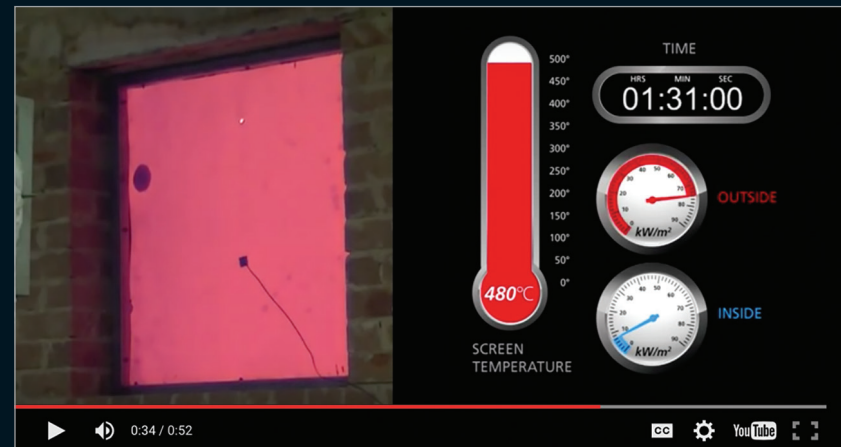
ForceField® fire attenuation test

Testing: The CSIRO tested a ForceField® window screen to a radiant heat flux level above 60 kW/m² for over 90 minutes (as a comparison, bushfires create heat flux levels of around 40 kW/m² and pass within minutes).

Superb results: After one and a half hours (91 minutes) the tested window screen remained in position. Throughout the test the heat level was measured one metre behind the

unexposed face of the window screen, and was approximately 10% of the level measured at the exposed face of the window screen.

Safer benefits: Even during a fire ForceField® will protect you. There's more than enough reduction in heat flux for ForceField® to be used on buildings with adjacent property boundaries of only 1m (see the National Construction Code (NCC) for more details).



Fire attenuation test no. FS 4302/3572



Scan here to watch testing video



Scan here to view test report



The Australian Standard for construction of homes in bushfire prone zones (AS 3959) simply states that openable windows must be screened with corrosion-resistant steel, bronze or aluminium mesh with an opening of less than 2 mm x 2 mm.

Prowler Proof ForceField® is one of very few security screens that has been independently tested and is approved for any Bushfire Attack Level...even Flame Zone, which is the most extreme level. Guardian window screens are approved up to Bushfire Attack Level 40. Our aluminium perforated Protec security mesh can also be used up to and including BAL 29. You can rely on Prowler Proof – even in a bushfire.

Have a look at our bushfire product guide in this brochure to select the right screening product against the different BAL level to suit your application.

If you live or have a house that could be classified as being in a bushfire prone area, we suggest you check your property with your local or state planning department to see if you have any Bushfire Attack Level (BAL) requirements. This If your home is in a BAL rated zone, that will give you the knowledge to start.



Tips to increase safety from bushfire

Here's a few tips to help increase your homes window and door safety from bushfire heat, flame and ember attack:

- Add or upgrade your screens to your BAL rating, ensure it has an aperture of 2mm or less (ForceField® is rated to the highest level of BAL-Flame Zone whilst providing the highest security levels).
- Upgrade all externally exposed glass to the required Grade-A safety glass, some BAL ratings will also require screens installed over the top of glazed panels (particularly lower glazed panels).
- Close any gaps around doors and windows with complying seals, this is where flying embers could enter the home.

Nice to know...

Annealed glass

The most basic glass product. It is the common glass that tends to break into large, jagged shards.

Aperture

The size of the hole or opening in the mesh.

BAL

Bushfire Attack Level.

Bushfire prone area

A bushfire prone area is an area of land that can support a bushfire or is likely to be subject to bushfire attack. Any areas coloured yellow, red or orange on a bushfire prone land map are considered to be bushfire prone.

Bushfire shutters

Hinged or roller shutters which are installed externally to openings and can be closed during a bushfire to protect the home from radiant heat and embers.

Certifier

Certifiers inspect construction and subdivision work and issue certificates to confirm the work meets legislative requirements and the Building Code of Australia.

CSIRO

The Commonwealth Scientific and Industrial Research Organisation is the federal government agency for scientific research in Australia. The CSIRO provide an extensive range of independent testing, assessment and consulting services.

Fire attenuation

Reduction of radiant heat and spread of flame.

Fire Danger Index (FDI)

Regional classification of fire danger based on climatological data. Used by fire agencies to

determine Fire Danger Ratings and for tactical planning.

Fire Danger Ratings (FDR)

Fire Danger Ratings are based on predicted conditions such as temperature, humidity, wind and the dryness of the landscape. The higher the Fire Danger Rating, the more dangerous the conditions.

Fire engineering

Fire engineering is the application of science and engineering principles to protect people, property, and their environments from the harmful and destructive effects of fire and smoke.

Fire Resistance Level (FRL)

Refers to the time in minutes which a substance will resist - without failure - exposure to heat and flame. All Fire Resistance Levels are tested within Australia to AS 1530 Part 4.

Fire Safety Report (FSR)

A report which specifies the materials to be used on a bushfire prone building. A project which requires that screens meet fire attenuation requirements should have a Fire Safety Report (FSR) from a fire engineer or certifier.

Grade-A Safety Glass

This is toughened or laminated glass and it helps reduce the risk of injury if broken. Toughened is especially good in fire prone areas as it can handle higher temperatures.

NATA

The National Association of Testing Authorities Australia provides assessment, accreditation and training services to laboratories and technical facilities throughout Australia and internationally.

Radiant heat flux

A measurement of the amount of heat energy sent from the heat source to a receiving object. Radiant heat flux is measured at the receiving surface to determine the heat transfer at that surface.

Radiant heat source

A direct source of heat energy. Examples include the sun, a lamp or a fire.

Radiation test

A test conducted to measure radiant heat flux.

Australian Standards

AS 1288-2006 Glass in buildings.

AS 1530.4-2005 Methods for fire tests on building materials, components and structures - Fire resistance test of elements of construction.

AS 1530.8.1-2007 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bushfire attack - Radiant heat and small flaming sources.

AS 1530.8.2-2007 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bushfire attack - Large flaming sources.

AS 2047-2014 Windows and external glazed doors in buildings.

AS 3959-2009 Construction of buildings in bushfire prone areas.

AS/NZS 3837 Method of test for heat and smoke release rates for materials and products.



Proud member of 

122 Buchanan Road, Banyo
Brisbane QLD 4014
T 07 3363 0666
E info@prowlerproof.com.au

www.prowlerproof.com.au

© Copyright 2021 Gershwin Pty Ltd
ABN 22 064 102 816

Disclaimer This document has been assembled in good faith by Gershwin Pty Ltd t/as Prowler Proof. Whilst care has been taken to ensure all information is accurate and up to date, the material includes incorporated and/or summarised views, guidelines or recommendations of third parties. The document is not a replacement for AS 3959-2009.