

## Manufacturers Statement - Bushfire Code Compliance

**PRODUCT: 160DS and 290DS**

The Australian Building Codes Board (ABCB) endorsed the final draft version of the Australian Standards 3959 – *Building in Bushfire Prone Areas, (AS 3959)*, which will be referenced by the Building Code of Australia (BCA) from May 2010.

The methodology for determining a given building’s construction requirements are:

1. Determine whether the building is in a designated bushfire prone area.
2. Using the site classification procedure, determine the bushfire attack level (BAL).
3. Select the appropriate construction solutions for the BAL level

The levels are based on heat flux exposure and range from Low to Flame zone: There are now six levels of bushfire attack.

**Table #1**

<u>BUSHFIRE ATTACK LEVEL (BAL)</u>	<u>Description of predicted bushfire attack and levels of exposure</u>
BAL – LOW	There is insufficient risk to warrant specific construction requirements < 12.5 kW/ m2.
BAL—12.5	Ember attack 12.5kW/ m2
BAL – 19	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5 and 19 kW //m2
BAL – 29	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19 and 29 kW /m2
BAL – 40	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 40kW /m2
BAL – FZ (Flame Zone)	Direct exposure to flames from fire front in addition to heat flux and ember attack kW/m2

Australia’s history of bushfires means that many homes could come under threat from serious bushfire danger. Solatube Australia has designed new bushfire protections accessories that can be installed into our Solatube 160DS and 290DS products.

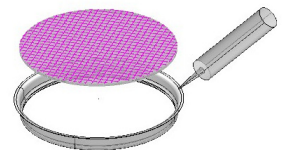
1. A unique non-combustible, wire reinforced glass disc and metal support ring.
2. A full range of metal roof flashings to be used in bush-fire attack regions.

Our new Solatube bushfire protection has been built in close consultation with the CSIRO’s Manufacturing and Infrastructure Technology Division to achieve Bushfire Attack Level Ratings within AS3959

The AS3959 Bushfire Standard identifies six Bushfire Attack Levels (BAL). Building products must meet these specific level requirements. The new Solatube bushfire protection add-on kit can meet the BAL-29 standard (refer checklist for BAL-29 specific requirements). The bushfire protection add-on kit will not meet requirements of BAL-40 or BAL-FZ. Building certifier must be consulted to determine if the product can be used.

To help you make sure you supply and install a Skylight that does comply with the new bushfire code AS3950 we have developed the following check list to assist you. But you remain responsible for correct product selection and correct installation!

NEW Solatube bushfire attack tube protection



NEW Solatube bushfire attack metal roof profile



**Note these tips are not relevant for BAL-40 / BAL-FZ**

<b>CHECKLIST ONLY</b>	
<b>Building Certifier must be consulted before final product selection</b>	
<u>Skylight Requirements for BAL-Low to BAL29 for AS3959-2009</u>	<u>Solatube Australia Comments</u>
Roof penetrations shall be adequately sealed at the roof to prevent gaps greater than 3mm.	All gaps greater than 3mm must be sealed to pass inspections.
The material to seal the penetration shall be non-combustible	Solatube Australia will provide you with Promaseal Fire Rated Acrylic Sealants when you purchase our bushfire protection accessory kit. You must use the sealant we provide!
Openings in vented roof lights... shall be fitted with ember guards made from a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion resistant steel, bronze or aluminium...	Solatube Australia does not supply a vented TDD product to meet this requirement.
All overhead glazing shall be Grade A laminated safety glass complying with AS1288	This requirement is not applicable for the Solatube TDD bushfire protection as we do not offer a glazed roof light (i.e. Roof window)
Glazed elements in roof lights and skylights may be of polymer provided a Grade A safety glass diffuser, complying with AS1288, is installed under the glazing. Where glazing is an insulating glazing unit (IGU), Grade A toughened safety glass, minimum 4mm, shall be used in the outer pane of the IGU	The Solatube TDD bushfire protection accessory kit is a minimum 6mm thickness polished reinforced Grade A safety glass.
Flashing elements of tubular skylights may be of a fire-retardant material, provided the roof integrity is maintained by an under-flashing of a material having a flammability index no greater than 5.	Solatube Australia supplies metal flashings when they are required meet bushfire attack levels. Metal roof flashings must be used in conjunction with bushfire protection add-on kit to meet BAL-29. (will not meet BAL-40 & BAL-FZ levels)
<b>BAL-29 Specific Requirement for AS3959</b>	
Where roof lights are installed in roofs having a pitch of less than 18 degrees to the horizontal, the glazing shall be protected with ember guards made from a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze or aluminium.	<p>≥ 18 degree roof pitch – Use standard bushfire protection add-on kit in conjunction with metal roof flashing</p> <p>&lt; 18 degree roof pitch - additional ember guard must be provided (supplied by others) in conjunction with standard bushfire add-on protection kit with metal roof flashing.</p>

## Solatube TDD Bushfire Protection Accessory Kit—Product Specification & Parts

**Please contact Solatube Australia on 13 16 19 when you require more information about installing skylights into bushfire prone areas**

