

BUSHFIRE AREAS

When constructing in a bushfire prone area it is safer to build in preparation for the most severe bushfire. This allows for surrounding vegetation to change over the life of the building. The most severe bushfire is described in the standard as BAL-FZ, or Bushfire Attack Level – Flame Zone.



Construction in bushfire prone areas must comply with Australian Standard AS3959 - 2009 *Construction of buildings in bushfire prone areas*. This standard provides guidance on the degree of bushfire danger for a particular dwelling and also the construction requirements.

Knauf has systems that can satisfy the requirements for AS3959 Flame Zone for the following elements of construction [See Table 2]:

- Subfloor supports
- Floors
- External walls
- Eaves and external ceilings
- Separating walls

Fire resistance and combustibility

All plasterboard is naturally fire resistant and is classified as non-combustible by the BCA (Building Code of Australia). The core slows down the spread of fire by releasing chemically bound water when heated. This is a similar process to evaporation and aids cooling. Knauf's MultiShield has additives that enhance both its fire resistance and water resistance, and is therefore suitable for external wall and ceiling systems as well as lining of wet areas such as bathrooms and laundries.

More information

For general information refer to the Victorian Building Commission publication – *A guide to building in Victoria after the bushfires*. This can be found on their website www.buildingcommission.com.au in the publications section under 'For consumers'.

For specific information refer to Australian Standard AS3959 - 2009 *Construction of buildings in bushfire prone areas*, available from SAI Global.

For more information on Knauf fire resistant solutions, contact our technical services team on 1300 724 505.

Table 1.

Description of bushfire attack levels from AS3959

BUSHFIRE ATTACK LEVEL (BAL)	DESCRIPTION OF PREDICTED BUSHFIRE ATTACK AND LEVELS OF EXPOSURE
BAL - LOW	There is insufficient risk to warrant specific construction requirements
BAL - 12.5	Ember attack
BAL - 19	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5 and 19kW m ²
BAL - 29	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19 and 29kW m ²
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
BAL - FZ	Direct exposure to flames from fire front in addition to heat flux and ember attack

Table 2.

Knauf systems for construction in the flame zone to satisfy AS3959

BUILDING ELEMENT	KNAUF PLASTERBOARD SOLUTION FOR BAL-FZ	PLASTERBOARD CONFIGURATION	
Subfloor supports (For an unenclosed subfloor)	Column and Beam Protection System LSEPT, LTEPT or LECP1 to provide an FRL of 30/-/-	1 x 13mm MultiShield	
Enclosed subfloor space using an external wall	Wall system LSW66 or LTW66 to provide an FRL of 30/30/30. Install according to <i>External Walls</i> requirements	2 x 13mm MultiShield	
Floor of an unenclosed subfloor space	Ceiling under floor system LF210 for an FRL of 30/30/30. Install according to <i>External Ceilings</i> requirements	1 x 13mm MultiShield	
External walls	External Wall system LSEW10 or LTEW10 for an FRL of 30/30/30	10mm plasterboard inside and 1 x 13mm MultiShield on the outside	
Eaves	Ceiling system LR210 or LR310 to provide an FRL of 30/30/30	1 x 13mm MultiShield applied first, covered with fibre cement	
External ceilings including alfresco areas, balconies and breezeways	Ceiling system LR210 or LR310 to provide an FRL of 30/30/30	1 x 13mm MultiShield	
Walls to enclose areas under verandahs, decks, steps, ramps and landings	Wall system LSW66 or LTW66 to provide an FRL of 30/30/30. Install according to <i>External Walls</i> requirements	2 x 13mm MultiShield	
Fire rated walls to separate attached structures such as a carport or verandahs	External Wall system LSEW11 or LTEW11 for an FRL of 60/60/60	10mm plasterboard on the inside and 1 x 16mm MultiShield on the outside	

Note: All systems referred to in Table 2 must be installed according to the latest Knauf Technical Manual, available on www.knaufplasterboard.com.au

KNAUF

For further information on Knauf products or systems, contact **1300 724 505** or visit our website at knaufplasterboard.com.au



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