

BUSHFIRE ATTACK LEVEL BUSHFIRE RESISTANT DOORS & FRAMES











Introduction

Hume Doors & Timber make it easy to get doors and frames that are bushfire zone compliant, by providing an extensive range of doors and frames designed and manufactured to meet the specific regulatory requirements of building in designated bushfire zones as specified in AS3959.

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What is a Bushfire Attack Level (BAL)?

A Bushfire Attack Level (BAL) is a risk assessment report measuring the severity of a building's risk level to bushfires. This includes exposure to ember attack, radiant heat and direct flame contact.

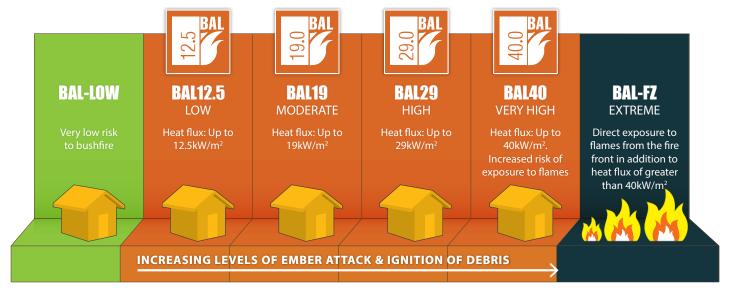
Every Australian property is subject to a BAL risk assessment report under the Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas.



How is a Bushfire Attack Level (BAL) rating measured?

Bushfire Attack Level (BAL) is measured in increments of radiant heat, this is expressed in kilowatts/m² which defines your BAL Rating. This rating is the basis for establishing the guidelines for construction to improve the protection of buildings from bushfire attack.

BAL-Low is the lowest bushfire risk and BAL-FZ (Flame Zone) is the highest. The diagram below shows the BAL ratings along with the radiant heat flux for each zone.



The greater the distance from potential fire the lower the heat flux and therefore the BAL construction requirement is lower.

How is a building's Bushfire Attack Level (BAL) determined?

Firstly, a Bushfire Management Plan (BMP) is undertaken on the property. A BMP is an in-depth method to identify the extent of bushfire hazard to a development/property. This plan assesses factors such as climate, topography, fuel loads, adjacent land use, offsite and onsite assets, water supply, emergency vehicle access, emergency escape routes, fire history and current fire risk.

A BMP sets out short, medium- and long-term bushfire risk management strategies for a particular area.

From this, a Bushfire Attack Level (BAL) assessment report is formed. A BAL assessment report is a simplified process to determine the BAL for a proposed building on a site within a bushfire prone area. Once assessed, the site/property will be defined into one of six BAL ratings:

	BAL-LOW	BAL12.5	BAL19	BAL29	BAL40	BAL-FZ
Heat flux	0kW/m ²	Up to 12.5kW/m ²	Up to 19kW/m ²	Up to 29kW/m ²	Up to 40kW/m ²	Over 40kW/m ²
BAL Rating	-	12.5	19	29	40	Flame Zone
Threat level	Very Low	Low	Moderate	High	Very High	Extreme



BAL TESTED AND CERTIFIED



BAL12.5

Our BAL12.5 compliant doors have been tested and are manufactured as per AS1530.8.1. For details about BAL12.5 visit:

www.humedoors.com.au/
downloads#bushfire-doors-certification

We recommend purchasing the door & frame together to ensure your entry system is BAL compliant.





BAL19 & BAL29

Our BAL19 & BAL29 compliant doors are manufactured to AS3959. For more details refer to Australian Standards (AS3959) for bushfire prone areas.

www.as3959.com.au.

We recommend purchasing the door & frame together to ensure your entry system is BAL compliant.





BAL40

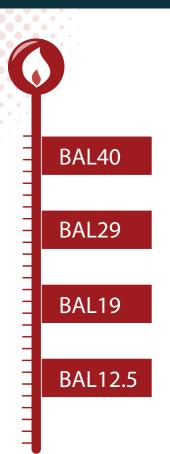
Our BAL40 compliant doors have been tested and are manufactured as per AS1530.8.1. For details about BAL40 visit www.humedoors.com.au/downloads#bushfiredoors-certification

Door & frame must be purchased together to ensure your entry system is BAL compliant.









What Bushfire Attack Level do I need?

Major bushfire disasters can be catastrophic. For this reason, tighter controls have been implemented to assist in building recovery efforts and keeping our communities safer. When starting a new build or preparing to rennovate, the first thing you need to do is check whether you are in a Bushfire Prone Area.

Visit your **local council website** to check if you are in a bushfire prone area and to find your BAL level requirement.

Alternatively, you can complete this step with a bushfire consultant. You can find an accredited Bushfire Consultant at www.fpaa.com.au.

How do we test our doors?

Hume Doors & Timber has extensively tested our comprehensive range of doors and door frame systems, which include both hinged and pivoted entry frame systems to meet the AS1530.8.1 criteria set for buildings in Bushfire Attack Level (BAL) zoned areas without compromising on functionality and aesthetics.

All our BAL tests are conducted in Australia by an independent third party fire testing consultancy firm. Look for our BAL symbol throughout our catalogue and website for compliance.

Doors must be installed as per AS3959 to conform to BAL (Bushfire Attack Level) compliance.



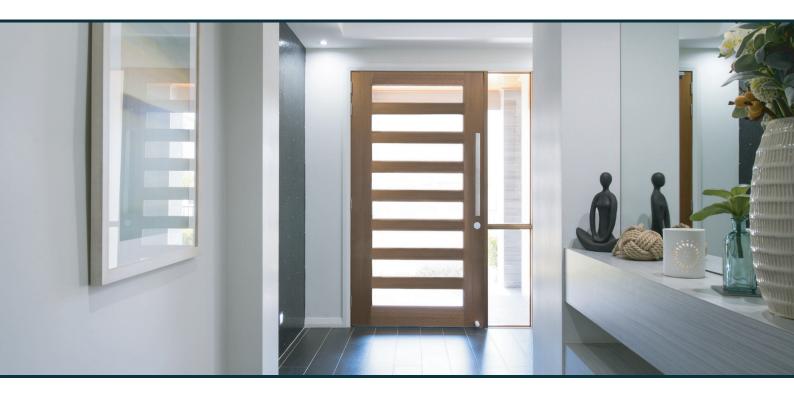
Watch our BAL40 burn test video.







Hume Doors & Timber have had a number of our Standard Entrance Ranges tested & approved to AS1530.8.1 for use in BAL12.5 zones. For BAL12.5 compliant doors see listed ranges below.



RANGES

SAVOY1200 **NEWINGTON** SAVOY820 **JOINERY** VERVE **VAUCLUSE PREMIER** LINEAR

REGENCY VAUCLUSE **VENETIAN** CARRINGBUSH **NEXUS**

Bushfire zoned doors to BAL12.5. These doors are tested to AS1530.8.1 and are BAL compliant when installed as per AS3959.



ILLUSION RANGE

Bushfire zoned doors to BAL12.5. Only available for doors glazed with Clear Laminate, Grey Laminate and Translucent. These doors are tested to AS1530.8.1 and are BAL compliant when installed as per AS3959.



GLASS OPENING RANGE

Bushfire zoned doors to BAL12.5. Only available for 40mm thick and solid construction. These doors are tested to AS1530.8.1 and are BAL compliant when installed as per AS3959.



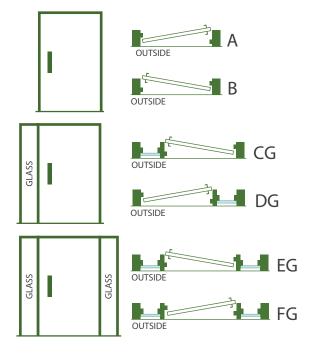
PIVOT FRAMES ENTRY FRAME



For pricing visit www.humedoors.com.au



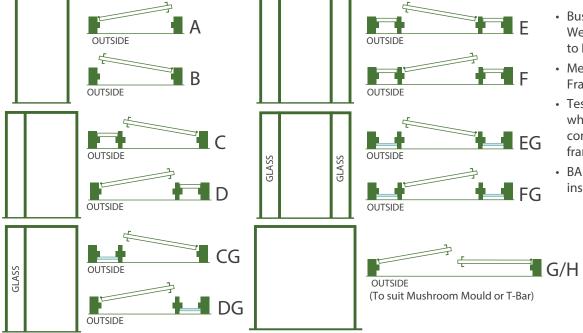
- Bushfire zoned Pivot System up to BAL12.5 zones.
- Meranti Pivot System Only.
- Tested to AS1530.8.1 when supplied as a complete unit (door & frame).
- BAL12.5 compliant when installed as per AS3959.





WEATHERGUARD ENTRY FRAME

For pricing visit www.humedoors.com.au



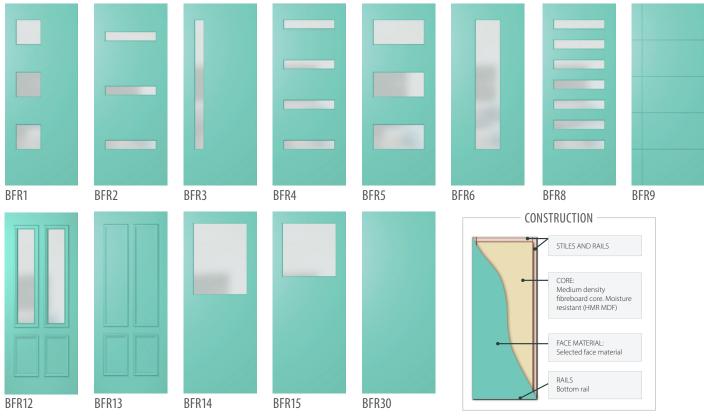
- Bushfire zoned Weatherguard System up to BAL12.5 zones.
- Meranti Weatherguard Frames Only.
- Tested to AS1530.8.1 when supplied as a complete unit (door & frame).
- BAL12.5 compliant when installed as per AS3959.



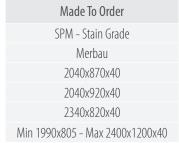


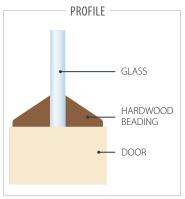
BAL19 & BAL29 BUSHFIRE RESISTANT DOORS





DESIGN CODE		BFR1	BFR2	BFR3	BFR4	BFR5	BFR6	BFR8	BFR9	BFR12	BFR13	BFR14	BFR15	BFR30
2040x820x40														
Glazed Standard	Size [Ooor												
Clear	G1						•			-				
Grey Tint	G2		•		-		-	•		•		•	•	
Africana	G3						•			-		•		
Frost	G4									-				







Glazed

-	_	-
	FACE OPTIONS	7 [
	Tempered Hardboard	
	(standard)	
İ		
	SPM	
	以 机体指数	

Merbau

Clear (6mm)	Grey Tint (6mm) Africana (6mm) Frost (6mm)
DOOR TERMS	DOOR DEFINITIONS
BAL RATING	BAL19 & BAL29 - Bushfire zoned up to BAL29 door system. These doors are manufactured to AS3959 and are BAL compliant up to BAL29 when installed as per AS3959.
CONSTRUCTION	DB Blank – Solid HMR MDF Core with 32mm stiles and rails with tempered hardboard faces as standard and the option of SPM or Merbau.
GLAZING	6mm Toughened safety glass and double-sided fire-resistant hardwood glazing bead.
DOOR THICKNESS	Available as 40mm thick only.
HINGES	A minimum 3 x 100mm square butt hinges for doors up to 2040x820. For doors over this size 4 x 100mm square butt hinges are required.

TOUGHENED GLASS OPTIONS

Cancellations or alterations for made to order doors will only be accepted on the day of ordering. Trimming Instructions: 3mm from the top, bottom and each stile. Timber is a natural material and colour, texture and grain variation can occur. These are not considered defects.

*BFR9 only Routed: Both sides | *BFR12 & BFR13 only Moulding: One side



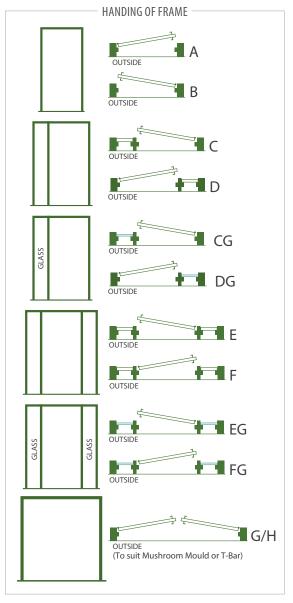


BAL19 & 29 WEATHERGUARD BUSHFIRE RESISTANT MERBAU FRAMES





BAL 19 & 29 MERBAU WEATHERGUARD SIZE +/- 5mm	140x40mm	160x40mm
2100x887 (2040x820 Door) A/B		
2400x1267 (2340x1200 Door) A/B		
2100x1317 (2040x820 Door) C/D		
2400x1317 (2340x820 Door) C/D		
2100x1410 (2040x820 Door) CG/DG (6mm Toughened Clear Glass Sidelite)	•	•
2400x1410 (2340x820 Door) CG/DG (6mm Toughened Clear Glass Sidelite)	•	•
2100x1748 (2040x820 Door) E/F		
2400x1748 (2340x820 Door) E/F		
2100x1650 (2040x820 Door) EG/FG (6mm Toughened Clear Glass Sidelite)	•	•
2400x1650 (2340x820 Door) EG/FG (6mm Toughened Clear Glass Sidelite)		•
2100x1719 (2040x820/820 Door) G/H (To suit Mushroom Mould or T-Bar)		•
2400x1719 (2340x820/820 Door) G/H (To suit Mushroom Mould or T-Bar)	•	•



FRAME TERMS	FRAME DEFINITIONS
BAL RATING	BAL19 & 29 – Bushfire zoned BAL19 & 29 door systems. These systems are manufactured to AS3959 and are BAL19 & BAL29 compliant when installed as per AS3959. We recommend that the door and frame must be supplied together to ensure compliance.
FRAME	The BAL19 & 29 Merbau Weatherguard is the complete BAL19 & 29 timber door frame solution and is manufactured to AS3959. Frames are fitted with an intumescent fire & smoke perimeter seal compliant to BAL19 & 29, the seal is removable for painting and is easily reinstalled.
SILL	Non-combustible aluminium sill with a generous tread pattern that helps to reduce slips. Self-draining and supplied with protective tape for protection during the construction/installation process.
TIMBER	Hardwood Jambs and head compliant with BAL19 & 29 as per AS3959.
6mm TOUGHENED GLASS	Complies with AS3959 – 6mm Toughened glass required, if glass portions are open-able or are within 400mm of the ground they must be screened with a BAL approved screen (screens not included).
HINGES	Frames supplied with a minimum 3 x 100mm square butt hinges for doors up to 2040x820. Frames for doors over this size require 4 x 100mm square butt hinges.
GLASS SIDELITES	CG\DG & EG\FG frames are glazed using 6mm toughened glass and must be screened with a BAL compliant screen as per AS3959.

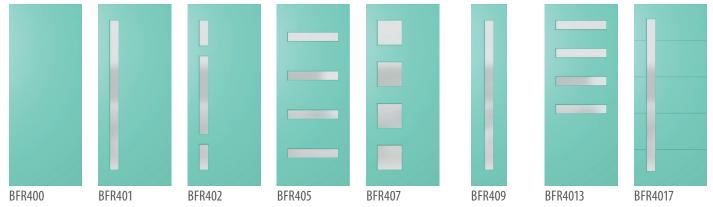
DISCLAIMER:

BAL 19 & 29 Merbau Weatherguard entrance frames are suited for bushfire zones BAL 12.5, 19, 29 when installed as per AS3959. CG\DG & EG\FG frames are glazed using 6mm toughened glass and must be screened with a BAL compliant screen as per AS3959.



BAL 40 BUSHFIRE RESISTANT DOORS





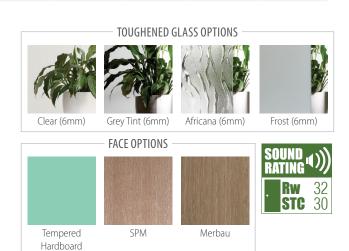
DESIGN CODE		BFR400	BFR401	BFR402	BFR405	BFR407	BFR409	BFR4013	BFR4017
2040x820x45		•							
Glazed Standard Size Door			2040x820x45	2040x820x45	2040x820x45	2040x820x45	2040x400x45	2040x820x45	2040x820x45
Clear	G1		•	-	•	•	•	•	•
Grey Tint	G2		•	•	•	•	•	•	
Africana	G3		•	•	•	•	•	•	•
Frost	G4								

	Made To Order
Face Option	SPM* – Stain Grade
Face Option	Merbau*
Special Size	2040x870x45
Special Size	2040x920x45
Special Size	2340x820x45
Special Size	2040x1200x45
Special Size	Min 1990x805x45 - Max 2340x1200x45
Special Size Sidelite	Min 1990x330x45 - Max 2340x500x45

^{*}SPM & Merbau not available for BFR4017

NOTE: Door & Frame must be supplied together to comply to BAL40 as tested to AS1530.8.1 Cancellations or alterations for made to order doors will only be accepted on the day of ordering Trimming Instructions: Cannot be trimmed!

Timber is a natural material and colour, texture and grain variation can occur. These are not considered defects.



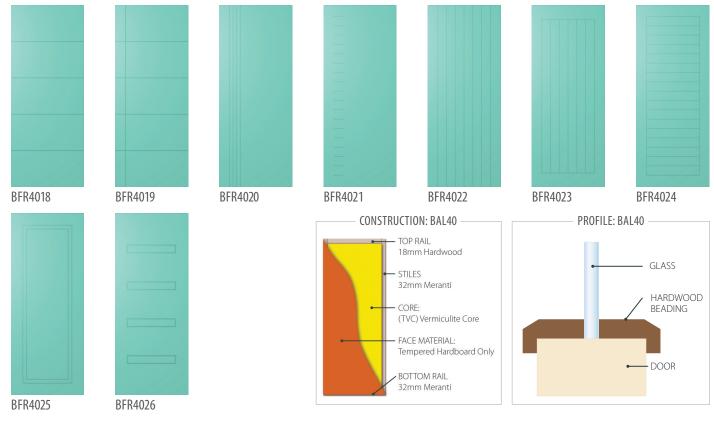
DOOR TERMS	DOOR DEFINITIONS
BAL RATING	BAL40 - Bushfire zoned BAL40 door system. These systems have been tested to AS1530.8.1 and are BAL40 compliant when installed as per AS3959. The door and frame must be supplied together to comply with BAL40 as tested to AS1530.8.1.
CONSTRUCTION	Maxi vermiculite fire core with 32mm meranti stiles, 32mm meranti bottom rail and 18mm hardwood top rail with tempered hardboard faces as standard and the option of SPM where applicable.
GLAZING	6mm Toughened safety glass and double–sided fire–resistant hardwood glazing bead as tested to AS1530.8.1.
SIZE	Standard door size 2040x820x45mm, special sizes available up to 2340x1200x45mm. NOTE: Available as 45mm thick only.
HINGES	Door systems supplied with a minimum 4 x 100mm square butt hinges as tested to AS1530.8.1 and compliant to BAL40.

(standard)



BAL 4U BUSHFIRE RESISTANT DOORS





DESIGN CODE	BFR4018	BFR4019	BFR4020	BFR4021	BFR4022	BFR4023	BFR4024	BFR4025	BFR4026
2040x820x45		•							-

Made To Order
2040x870x45
2040x920x45
2340x820x45
Min 1990x805x45 - Max 2340x1200x45

NOTE: Door & Frame must be supplied together to comply to BAL40 as tested to AS1530.8.1 Cancellations or alterations for made to order doors will only be accepted on the day of ordering Trimming Instructions: Cannot be trimmed!

Routed: Both sides

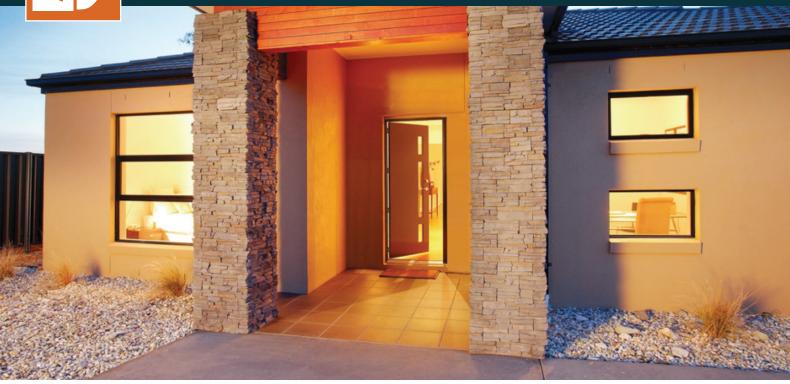




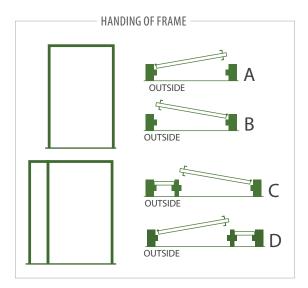


BAL40 WEATHERGUARDBUSHFIRE RESISTANT MERBAU FRAMES





BAL 40 MERBAU WEATHERGUARD SIZE +/- 5mm	140x40mm	160x40mm
2100x887 (2040x820 Door) A/B		
2400x1267 (2340x1200 Door) A/B		
2100x1317 (2040x820 Door) C/D		
2400x1317 (2340x820 Door) C/D		



DISCLAIMER: Door & Frame must be supplied together to comply to BAL40 as tested to AS1530.8.1

FRAME TERMS	FRAME DEFINITIONS
BAL RATING	BAL40 - Bushfire zoned BAL40 door system. These systems have been tested and are BAL40 compliant when installed as per AS3959. Door and frame must be supplied together to comply with BAL40 as tested to AS1530.8.1.
FRAME	The BAL40 Merbau Weatherguard is the complete BAL40 timber door frame solution and is tested and compliant to AS1530.8.1. Frames are fitted with an intumescent fire & smoke perimeter seal compliant to BAL40, the seal is removable for painting and is easily reinstalled.
SILL	Non-combustible aluminium sill with a generous tread pattern that helps to reduce slips. Self-draining and supplied with protective tape for protection during the construction/installation process.
TIMBER	Hardwood Jambs and head compliant with BAL40 and tested to AS1530.8.1
HINGES	Frames supplied with a minimum 4 x 100mm square butt hinges as tested to AS1530.8.1 and compliant to BAL40.



Additional Extras

These additional extras must be applied to the door/frame price.

ADDITIONAL EXTRAS FOR DOORS

Aluminium T-Bar 2400mm high 1.8mm thick including seals -To suit BAL12.5, 19 & 29 ONLY Mushroom Stop 2100mm Length Merbau - To suit BAL12.5, 19 & 29 ONLY Mushroom Stop 2400mm Length Merbau - To suit BAL12.5, 19 & 29 ONLY Hinge 100mm (each)

ADDITIONAL EXTRAS FOR FRAMES

Frame width upgrade for door over 820 wide up to 870 wide or sidelite over 400 wide
Frame width upgrade for door over 870 wide up to 1200 wide (4 hinges) standard frame
Frame height upgrade for doors over 2040 high up to 2340
Shrink wrap frame for additional protection

Care & Maintenance

- 1. After selecting and purchasing your Hume door, store flat in a dry, well-ventilated area before installation.
- 2. Your timber door may be affected by changes in temperature, moisture and location.
- 3. Before fitting the door, all six door surfaces should be sealed initially then after installation painted, stained or clear finished with good quality products. Follow the paint manufacturer's instructions with the correct number of coats on ALL surfaces.
- 4. Light reflective colours are recommended for Entrance Doors to reduce the possibility of bow, twist or warp. Dark colours may void Hume guarantee. Semi-gloss finishes are recommended. Paint with a light reflectance value (LRV) finish greater than 50 should be used on External Doors. White LRV approx 95, Black LRV approx 5.
- 5. Use the same colour on all six door surfaces. Different colours may cause doors to warp.
- 6. Entrance Doors require overhead protection.
- 7. Location and fitting of your door furniture can depend on door construction. Solid doors (doors rated for BAL12.5, BAL19, BAL29 & BAL40) may have door furniture installed at any selected height, either side of the door.
- 8. Door maintenance is necessary for long term performance and periodic inspections are recommended. At the first signs of deterioration, your door should be properly refinished. Make sure that all surfaces of the door receive proper resealing and painting.
- 9. To clean your door, use a damp cloth. Do not hose or use chemicals or abrasives on your door. Lightly oil hinges and door furniture for optimum performance.

Contact your nearest Hume Doors stockist or the Hume Doors website for more information.



FREQUENTLY ASKED QUESTIONS





1. Are BAL doors & frames fire rated?

No. BAL doors are tested / compliant to the bushfire regulations and standards not to the fire door regulations and standards.

2. What's the difference between Bushfire Resistant (BFR) doors & Fire Rated doors?

The Bushfire Regulatory Standard is AS3959 and Hume Doors rated to BAL12.5 & BAL40 are tested and approved to AS1530.8.1. Hume Doors rated to BAL19 & BAL29 are manufactured to AS3959. Firedoors are tested and approved to AS1905.1.

3. What's the construction of all the different Bushfire Resistant (BFR) doors?

BAL12.5 construction is as per standard solid entrance (DB blank or Engineered Joinery). **BAL19 & BAL29 construction** is as per standard solid entrance (DB blank) with no glass opening below 400mm from the bottom of the door. Doors come standard with double-sided Merbau glazing bead.

BAL40 construction has 32mm Meranti stiles and bottom rail, 18mm Hardwood top rail and Firecore core (as per Hume Doors & Timber Firedoors). Doors come standard with specifically engineered doubled sided Merbau glazing bead (for glazed BAL40 doors)

4. Can BFR doors be manufactured at 35mm in thickness?

No. BAL12.5, BAL19 & BAL29 must be 40mm thick. BAL40 must be 45mm thick.

5. Can you get edge strips on BFR doors?

No.

6. What does the rout look like for the BFR9 in the BAL19 & BAL29 range?

BFR9 has the same rout as the Linear Range

7. What mouldings are used on BFR13?

Merbau Vantage mould (Merbau XVP mould)

8. Are Pivot frames Bushfire Resistant and if so to what level?

Yes, tested and approved to BAL12.5 in Meranti only

9. Is the BFR range available in Paint Ply faces?

No. BFR doors are only available with door faces specified within this document

10. Can we supply glass sidelite frames, like CG or DG to suit BAL?

BAL12.5 - Yes.

BAL19 & BAL29 - Yes, glass portions within 400mm from the ground must be screened by a BAL compliant screen (screens not included).

BAL40 - No, glass portions cannot be within 400mm from the ground. As tested to AS1530.8.1.

FREQUENTLY ASKED QUESTIONS





11. What are the minimum requirements for BAL approved glass?

BAL12.5 - All glass is tested and approved to AS1530.8.1. BAL19, BAL29 & BAL40 - 6mm toughened glass.

12. Are perimeter seals required on frames supplied for BAL?

BAL12.5, BAL19, BAL29 & BAL40 - Yes, must have a BFR AQ complaint door seal and this is standard across the Weatherguard Entry Frame range. This will ensure the door and frame are tight-fitting as are the requirements under the Australian standards.

13. If my customer asks "How do I know what Bushfire level I need?"

If your customer has any questions you must tell them to contact their Local Government to determine whether their property is located within a bushfire prone area and the approvals that are appropriate for their specific project.

14. Can one property have more than one BAL rating?

A BAL rating is assessed on several factors including the slope of the land, exposure to ember attack, radiant heat, direct flame contact and the type of vegetation on the property and its distance to the home or site. This may impact differently on different sides of the property, so yes. An example may be the western side of a property may have a higher rating than the eastern side and this all dependant on the factors outlined earlier.

15. Are there any timber doors that comply with BAL-FZ?

No, the only options are aluminium doors designed to resist ignition or a fire door rated to 30mins or more.

16. Can BFR doors be rebated for pairs?

No. BAL12.5, BAL19 & BAL29 only use Merbau mushroom mould or Aluminium T-Bar (refer Additional Extras on page 13). No pairs for BAL40.

17. Can I use a BAL40 compliant product for any lower BAL rated zone?

Yes. You may use any BAL rated system below or up to the BAL level it is rated to. For example, a BAL19 can be used for BAL12.5 and BAL19 but cannot be used for BAL29 rated zones.

18. Is a Standard Entry Frame (SEF/HEF) BAL Compliant?

Yes for BAL12.5, when installed as per AS3959. No for BAL19, BAL29 and BAL40.





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Disclaimer: Hume Doors & Timber reserves the right to alter or amend without prior notice, any data, dimensions and design details specified herein. Photographs or illustrations may not depict the exact design or specification and may vary to the actual product. Doors are supplied unfinished unless otherwise specified and routed doors have exposed MDF.