

# TRAFALGAR BUSHFIRE BAL-FZ ROOF SYSTEM



Trafalgar's BAL-FZ FyreROOF is a new Bushfire Roof system that uses an exterior grade rigid fire board at its core which allows the roof cavity to breathe as a permeable membrane. The FyreROOF system is approved to satisfy the compliance requirements of Section AS3959-2018 Section 9 - FLAME ZONE.



## KEY FEATURES

- Vapour permeable fire board allows the buildings to breathe
- Glass fibre mat holds screws close to edges
- High level of fire resistance (BAL-FZ)
- Prevents mould formation
- Suitable for all climate zones
- Exterior grade, weatherproof board can be left exposed for 12 months allowing fitout
- All major system components supplied by Trafalgar
- Boardex board scores and snaps like plasterboard

## APPLICATIONS

- Bushfire Roofs tested to AS1530.8.2 with BAL-FZ Classification including:
  - ◇ Colourbond/zincalume roofing
  - ◇ Various steel sheet profiles
  - ◇ Tiled roofs
  - ◇ Steel and timber roof struss
- Trafalgar also have a Bushfire Wall system to provide a-/30/30 FRL

## KEY SYSTEM COMPONENTS

**boardex**  
exterior sheathing

**FyreFLEX**

**T ROCK**

**T STOP**

**T BOARD**

## TRADES



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*Trafalgar Boardex board being subjected to a weather test outside our Sydney Manufacturing Facility. The Board has remained in great condition over the last few years, despite harsh weather conditions. Visit our office to check it out!*

# WHAT IS FYREROOF?

Trafalgar's BAL-FZ FyreROOF System is an assembly of materials that have been chosen specifically with not just fire but also vapour permeability in mind. Unlike other bushfire roof systems that capture moisture within the roof cavity, the FyreROOF system uses a unique vapour permeable fire board that allows air and moisture to evaporate out of the ceiling to avoid mould growth, as well as pass the stringent AS1530.8.2 fire testing standard. The FyreROOF consists of:

System Component	Description	Image
<b>BoardeX</b>	Orange fire board with a moisture-resistant and vapour permeable core, faced with a damage-resistant glass-fibre matt. It provides a weatherproof envelope to allow internal trades to progress prior to completion of roofing and cladding. BoardeX can be exposed to weathering conditions for up to 12 months without requiring any treatment. Glass matt allows for screw or staple fixings close to the edges of the board.	
<b>T-Stop</b>	An external grade Polyurethane Sealant that is used to seal the joints in the BoardeX sheets to provide a fire and weatherproof envelope.	
<b>T-Board Eave and Fascia Board</b>	A rigid, foil faced thermal board that is applied to the fascia and underside of the eaves to provide a high level of fire resistance on the edges of the house closest to the flame zones	
<b>T-Rock</b>	An exterior grade stonewool thermal blanket with foil on one side, used to line over the BoardeX to provide high thermal efficiency to the roof space and insulate the cavity during a bushfire event.	

Now that NCC 2022 has been adopted, ALL class 9 (healthcare) buildings MUST be constructed in accordance with AS3959-2018. Trafalgar BAL-FZ Roof System is approved to satisfy these bushfire requirements and has been tested to AS1530.8.2 – 2018 and achieved a BAL-FZ classification result for roof applications. For bushfire wall applications, please contact Trafalgar for more information on our developing range at [technical@tgroup.com.au](mailto:technical@tgroup.com.au).

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# BUSHFIRE ATTACK LEVEL (BAL) DETAILS



Image Source: Bushfire Prone Planning- [What is BAL?](#)

## COMPLIANCE & FYREROOF SYSTEMS

### Compliance and Reports

The FyreROOF system has been physically tested to AS1530.8.2:2018 and obtained a BAL-FZ classification that meets and complies with AS3959-2018 section 9 - FLAME ZONE. Report FAS230057 covers the compliance of:

- Steel and timber framed roofs
- Metal roof sheeting (Zincalume, custom Orb etc.)
- Tiled roofs

To obtain a copy of the fire testing reports please head online to the [Fyre-ROOF Webpage](#).



BAL	Description of Risk	FyreROOF system
<b>BAL- LOW</b>	Lowest risk from a potential fire	✓
<b>BAL- 12.5</b>	Risk is primarily from potential embers during a fire	✓
<b>BAL- 19</b>	Moderate risk, particularly from embers and burning debris	✓
<b>BAL- 29</b>	High risk, particularly from embers, debris and heat	✓
<b>BAL- 40</b>	Very high risk. Likely to be impacted by embers, debris, heat and	✓
<b>BAL- FZ</b>	Extreme risk. Directly exposed to the flames of a potential fire	✓

# BOARDEX SPECIFICATIONS

Specifications	Detail
Board Size	2400 mm x 1200 mm
Thickness	12.5mm
Board Weight (approx.)	31 kg
Bending Diameter	1.5 m
Weight (per 1sqm)	11kg
Density	861 kg/m <sub>3</sub>
Shear Strength	≥ 1000 N
R Value (For 12.5mm board thickness)	0.06 m <sup>2</sup> K/W
Mould Resistance	<b>10 (according to ASTM D 3272-12 )</b>
Vapour Permeance, μ (For 12.5mm board thickness)	<b>2.0 μg / Ns</b>
Water Vapour Permeability Resistance Factor	<b>10 ( This is the best result achievable)</b>
Total Water Absorption (by the weight)	≤ 5% acc. To TS EN 15283-1, H1
Linear Variation (Due to change in moisture content)	0,004 mm/mt.%RH
Thermal Conductivity	0.25 W/m.K

## BoardeX is suitable for:

- BAL-FZ Bushfire Roof Systems
- BAL-FZ Bushfire Wall Systems
- Designed to be used in All Climate Zones, including 6, 7 & 8.
- Mold resistant water barrier
- Vapour permeable, rigid fire board barrier provides a breathable system
- Strong and light-weight
- Weather resistant for 12 months when exposed
- BoardeX scores and snaps like plasterboard
- Staple fixing for quick installation



# SYSTEM RANGE



## COMPONENTS SUPPLIED BY TRAFALGAR

Component	Description	Item Code	Packaging
BoardeX	12.5mm thick BoardeX rigid vapour permeable fire board with orange fibre matt face 2400x1200mm	BoardeX-12.5	40x boards to a pallet
T- Board	Siderise foil faced insulation board- 2000 length x 1180 width x 25mm thickness	SIDERISE-CW-FB	32x boards to a pallet
T-Stop	Polyurethane sealant 600ml sausage	TREMstop PU+	20x Sausages per box
T-Rock	Thermal wool blanket Insulation foil faced on one side only, 50 mm thick in a roll 1.2 m wide x 4 m long	T-Rock-50	8 x Rolls per pallet
FyreFLEX®	FyreFLEX Arylic Fire Rated Sealant Sausage 600ml White	FyreFLEX 600W	20x Sausages per box
	FyreFLEX Arylic Fire Rated Sealant Sausage 600ml Grey	FyreFLEX 600G	

## COMPONENTS SUPPLIED BY OTHERS

Component
Fascia boards and brackets
Ridge caps
Flashings
Screws for Timber and Metal Frames Staples for Timber Frames
Gutters
Roof sheetings and tiles
Top hats and brackets



# FAQ

**Q Do I need to install sarking with your roof system?**

**A** No, Boardex is a vapour permeable, rigid air barrier

**Q Can I use the Boardex roof system with tiled roofs?**

**A** Yes, the system is approved for steel profile and tiled roof finishes

**Q Can I put service penetrations through the FyreROOF?**

**A** No, please route services elsewhere to avoid penetrating the BAL-FZ roof system.

**Q Do I need to seal the joints in the Boardex boards?**

**A** Yes, the joint should be sealed with the T-Stop sealant to provide a fire and temporary weather seal

**Q How long can I leave the Boardex boards exposed before sheeting the roof?**

**A** Boardex has been shown to remain exposed without degradation for 12 months at the Trafalgar head office in Sydney

**Q How do you cut Boardex?**

**A** It can be scored and snapped similar to plasterboard, or cut with hand/power tools

**Q Can I use Boardex as a bushfire wall system?**

**A** Yes, there is a Boardex wall system tested for an FRL of-/30/30. Contact Trafalgar for more details

