

# Rainscreen Ventilated Fire Barrier

*An intumescent FR barrier for slab edge, curtain wall and façade applications*



## *Technical Data Sheet*

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## KEY BENEFITS

- Allows air movement in building design whilst providing superior fire rating
- Fire Resistance testing to 60 and 120mins
- Air Permeability testing to 600Pa
- Superior level of sustainability
- Life expectancy of over 25 years
- See MORE advantages below

## INTRODUCTION



Rainscreen Ventilated Fire Barrier (RSVB) is developed to protect the building void between the outer rainscreen cladding/facade and the inner construction element. **RSVB** leaves a gap up to 50mm to allow the movement of air and moisture. The aluminium foil facings provide class 'O' rating and excellent resistance to smoke. A unique method of manufacture provides a resilient lateral compression required to ensure a tight fit.

Rainscreen Ventilated Fire Barrier **RSVB** comprises an aluminium foil faced structural rockwool section with an integral intumescent strip bonded to cover the exposed face. The intumescent is wrapped to ensure there is no moisture ingress. In the event of direct exposure to fire, when subjected to heat, the intumescent strip rapidly expands and fills the air gap left within the void.

## ADVANTAGES

The advantages of **RSVB** are as follows:

- Fire Resistant testing to 60 & 120mins.
- Air Permeability testing to 600Pa.
- Suitable to close up to 50mm ventilation gap.
- Voids up to 450mm wide.
- Available in Pre-Cut Sections for ease of application with minimum waste to suit void size.
- Superior Level of Sustainability.
- Encased Fibre Migration for Air Plenum Use.
- Free of halogens, asbestos, fibres, silica and non-toxic.
- Brackets included in the pack.
- Life expectancy of over 25 years.
- Contributes to Green Building.
- Softer feel, Odourless and Easy to Cut.
- Light Weight.

**SPECIFICATION**

<b>Description</b>	Silver Foil Wrapped with black encased intumescent edge. Can be fully encased.
<b>Fire Resistance</b>	BS 476 – 20/22 60mins, DIN 4102 B2 – 30/30
<b>Closure Time</b>	> 5mins
<b>Activation</b>	Approx. 180°C – (Intumescent Material)
<b>Expansion Volume</b>	25 time thickness of material (1.4mm = 30mm)
<b>Expansion Pressure</b>	Approx. 0.7N/mm <sup>2</sup>
<b>Density</b>	Rockwool 80kg/m <sup>3</sup> Intumescent 1.3g/cm <sup>3</sup>
<b>Weather Resistance</b>	Yes
<b>Sag</b>	0%
<b>Open Void Size</b>	25mm – 50mm
<b>Dimensions</b>	75mm thickness x 1000mm long
<b>Widths</b>	30mm to 450mm
<b>Brackets</b>	3 per unit

**INSTALLATION GUIDE**

- **RSVB** must be installed with un-faced rockwool in contact with sides of structural element.
- Insert seal into cavity with a 25mm gap to the external edge of cavity.
- Strips are located with dedicated ‘split’ fixing brackets which are impaled in to **RSVB** material at mid-thickness.
- Bracket to be at 400mm centres, push legs back to mechanically retain intumescent strip.
- Brackets must be fixed to structure using non-combustible fixings.
- Brackets – minimum of 3 brackets within **RSVB**
- Ensure all joints of **RSVB** are tightly abutted

For detailed information see Installation Manual section.

**INSTALLATION MANUAL**

The purpose of this Installation Manual is to give guidance to approved contractors and suppliers who are engaged in the fire stopping of service penetrations in walls and floors using the **RSVB**.

All service holes through floors and compartment walls must be fire stopped to prevent the passage of fire, smoke and hot gases.

The result of this work will:

- Prevent the spread of fire, smoke and hot gases through a building by containing it in the compartment of origin.
- Maintain the integrity of escape routes from a building.
- Reduce loss or damage to property from the effect of fire and smoke.
- Maintain pressure differential between compartments and ventilation channel.
- Open State Cavity Barriers

## INSTALLATION MANUAL CONTINUED

### Tools and Equipment Required

1. Steel tape measure min. 2m
2. Carpenters pencil & straight edge
3. All-purpose saw
4. Hand brush and dust pan
5. Bread knife
6. Plastic sheeting
7. Pointing trowel
8. Pallet knife

### Training

All installers of Rainscreen Ventilated Fire Barrier should have relevant training from Boss Fire and be deemed competent. All installation work must be carried out in accordance with the guidelines explained in this document.

### Preparation for Installation

Ensure that all building element are complete and installed to the satisfaction of the main contractor's or client's approval.

Remove all unnecessary combustible materials from the opening. Using a dust pan and brush, sweep all loose products from the surfaces of the slab edge local to the installation. Place a plastic sheet beneath the working area to catch any falling materials.

**RSVB** is available in 1000mm x 75mm then cut to the size of the void.

**RSVB** is approved to be used with floor slabs abutting various substrates, most commonly brick, block work, concrete, dry lining walls and steel clad walls.

### Installation of RSVB

Measure the size of the opening, cut **RSVB** to size. Mask all surfaces where necessary to ensure the aesthetics of **RSVB** is maintained (fig 1).



Fig 1.

Install the simple fixing bracket by bending at the appropriate points so that the bracket can be fixed to the upper surface of the slab and bend down hard against the slab edge where **RSVB** will be held, impale the bracket in to the **RSVB** at the mid-point, ensuring the **RSVB** can be pushed firmly against the slab edge (fig 2).



Fig 2.

Brackets should be maximum of 400mm between centres, requiring a minimum of 3 per 1m length of each **RSVB** (fig 3).



Fig 3.

### Installation of RSVB Continues

Fit the **RSVB** in to the void, ensuring there is a 25mm gap between the curtain wall and the **RSVB**. Drill or nail-fire non-combustible fixing through the split fixing bracket in to the slab (fig 4).



Fig 4.

Continue the above procedure to fill the opening. The seal should be made up from as few pieces of **RSVB** as practicable.

Any small gaps in the seal left when all cut pieces have been installed should be tightly packed with off-cuts and sealed with foil tape.

To complete the installation a small bead of FireMastic-300 Sealant can be applied around the extremities of the opening. Remove any masking and dispose of waste materials.

In a fire situation, the **RSVB** will activate and expand against the curtain wall to provide an effective fire seal (fig 5).



Fig 5.

### COMPLIANCE

**RSVB** is manufactured in the EU, meeting the highest quality standard in compliance to BS EN ISO 9001:2008. For fire test certification contact Boss Fire technical department on 1300 502 677.

### STORAGE AND DISPOSAL

Rainscreen Ventilated Fire Barrier should ideally be stored between -5°C and +25°C indoors, above ground level in dry well ventilated conditions.

### ENVIRONMENT

Boss Fire & Safety contribute to Green Building by having a manufacturing policy of 100% recycle and 0% landfill.

**RSVB** contribute to Green Building:

- Low VOC (air quality).
- No Power Tools required for installation (no energy source required).
- Dust free.
- Low Ozone Depletion Potential (ODP).
- Low Global Warming Potential (GWP).
- No water pollution.
- Smoke and Air Tightness.
- Water Tightness
- Noise Reduction.
- Thermal Insulation.
- Recycling of Packaging.
- Avoidance of Air Filtration.
- Does not emit halogenated by-products.
- The life cycle of **RSVB** is over 25 years.

### HEALTH AND SAFETY

To learn more about the safe handling of Rainscreen Ventilated Fire Barrier, see the Material Safety Data Sheet available at [www.bossfire.com.au](http://www.bossfire.com.au).

### LIMITATION

BOSS Fire & Safety Pty Ltd has provided the above technical information in good faith and to the best of its knowledge. This information was deemed to be correct at the time of publication. Should any data come to BOSS Fire & Safety's attention relating to the fire resistance or performance of the product described, BOSS Fire & Safety reserve the right to amend this report.

BOSS Fire & Safety strive to constantly improve and develop products so this information may change without notice.

### FURTHER TECHNICAL INFORMATION

For additional technical information on the performance of Rainscreen Ventilated Fire Barrier or other BOSS products please contact our Technical Services team on:

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