Bastion Stonewool Board

Non-combustible insulation for masonry walls with ventilated cladding

Bastion Stonewool Board is a rigid stone wool insulation made from basalt and blast furnace slag. It is fixed to masonry and reinforced concrete walls as a continuous insulation layer behind a drained and ventilated cladding system.

The boards fit closely around brackets, wall ties and other details. Tightly butted, they form a continuous insulation layer. Very low water absorption limits moisture uptake in the cavity.

FIRE PERFORMANCE

Non-combustible to AS 1530.1. The board adds no significant fuel load to the wall.

- Non-combustible — AS 1530.1
- Thermal — R1.47 at 50 mm
- Low water absorption — EN ISO 29767
- Basalt stone — + blast furnace slag

TECHNICAL PARAMETERS

Property	Result	Test standard
Reaction to fire	Non-combustible	AS 1530.1:2024
Thermal conductivity (λ)	0.0339 W/m·K	AS/NZS 4859.1, ASTM C518-21
Thermal resistance, 50 mm	R1.47 m²·K/W	AS/NZS 4859.1
Water absorption (partial immersion)	0.03 kg/m²	EN ISO 29767:2019
Water vapour sorption	0.16% by weight, 0.01% by volume	ASTM C1104/C1104M-19
Nominal density	80 kg/m³	
Raw materials	Basalt, blast furnace slag	

PRODUCT SPECIFICATION

R-value (m²·K/W)	Thickness (mm)	Width (mm)	Length (mm)	Boards per pack	Area per pack (m²)	Pack weight (kg)
1.47	50	600	1200	6	4.32	17.3

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Made in China

APPLICATION

Suitable for

- Masonry and reinforced concrete walls with a drained and ventilated cladding system
- Masonry veneer walls
- Rainscreen façades

Not for

- Exposed applications
- ETICS or rendered systems
- Roofs, floors or structural use

COMPLIANCE WITH THE NZ BUILDING CODE

When installed as described in this data sheet, the board supports compliance with, or contributes to:[1]

B1 Structure	Contributes to B1.3.2, B1.3.3 (a), (h), (m) and B1.3.4 (d)	Mechanically fixed with polypropylene insulation fixings to resist wind actions
B2 Durability	Supports compliance with B2.3.1 (a), not less than 50 years, and B2.3.2 (a)	Inorganic basalt and slag fibres, protected behind the cladding
E2 External moisture	Supports compliance with E2.3.2, E2.3.5 and E2.3.7	Water absorption 0.03 kg/m² (EN ISO 29767). Installed within a drained cavity
E3 Internal moisture	Contributes to E3.2 (a), E3.2 (c) and E3.3.1	Continuous external insulation reduces thermal bridging and cold internal surfaces
H1 Energy efficiency	Contributes to H1	R1.47 at 50 mm (AS/NZS 4859.1)

1. Assessed by BG&E as an Alternative Solution, Compliance Pathway Report P001917, October 2026.

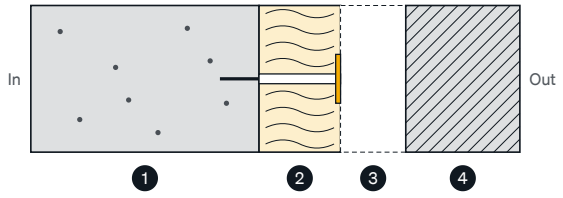
WATER RESISTANCE

The boards absorb very little water: 0.03 kg/m² water absorption (EN ISO 29767) and 0.01% by volume water vapour sorption (ASTM C1104).

CONDENSATION CONTROL

Fixed outside the masonry or concrete as a continuous layer, the board reduces thermal bridging (Figure 1). Internal surfaces stay warmer, lowering the risk of condensation and mould.

Figure 1. Typical wall build-up, plan section



1 Reinforced concrete wall
2 Bastion Stonewool Board
3 Ventilated cavity
4 External cladding

How to fix Bastion Stonewool boards to masonry and reinforced concrete walls as a continuous insulation layer behind a ventilated cavity system.

INSTALLATION

- Stand boards vertically, with the 1200 mm edge running up the wall. Butt them tightly at every vertical and horizontal joint and at corners.
- Lay boards in a staggered pattern so horizontal joints don't line up from one column to the next (Figure 3).
- Fix each board with four polypropylene insulation fixings, one near each corner, between 100 mm and 200 mm in from both edges (Figure 2).
- Use fixings with a head diameter of at least 60 mm. Embed into the masonry or concrete as per the fixing manufacturer's instructions.
- Cut and fit boards tightly around cladding brackets, wall ties and other penetrations. For odd-shaped boards or small pieces, work out the number of fixings at 5.6 per m², with at least one per piece, and space them evenly.
- Check the fixing layout against the project wind design and add fixings where it calls for more.

FIXING SUMMARY

Board size	600 × 1200 × 50 mm
Orientation	Vertical (1200 up the wall)
Joint layout	Staggered
Fixings per board	4, one per corner
Edge distance	100 to 200 mm, both edges
Fixing centres in board	200 to 400 mm across 800 to 1000 mm up
Fixings per m²	5.6 (4 per 0.72 m²)
Fixing type	Polypropylene, 60 mm min head

Figure 2. Fixing layout, one board (mm)

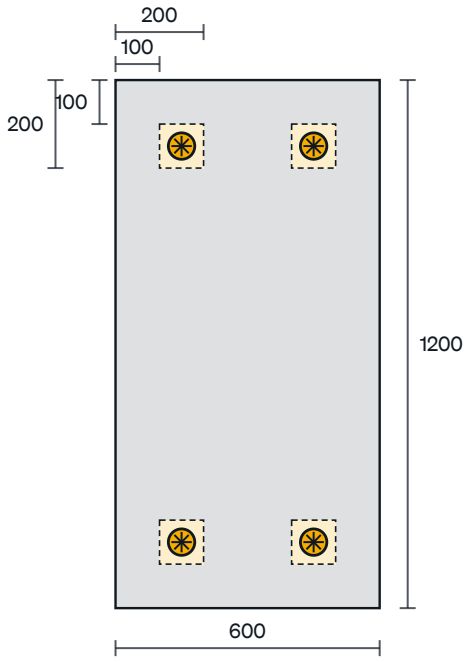
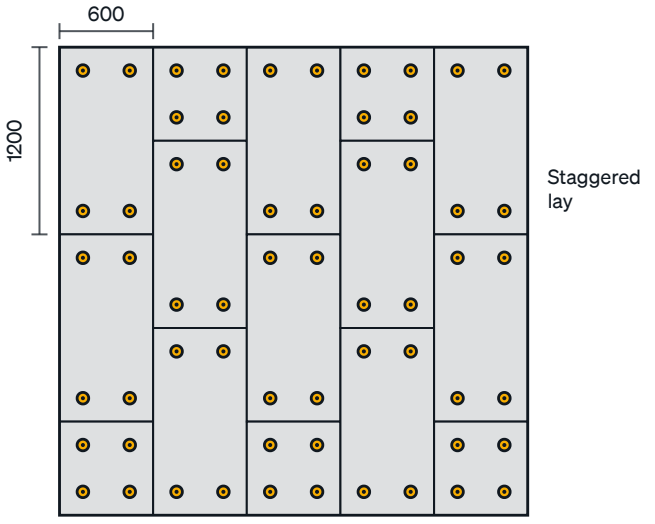


Figure 3. Board layout on the wall, staggered lay (mm)



Polypropylene insulation fixing
60 mm min head diameter

Fixing zone
100 to 200 mm in from both edges

WORK ON SITE

Bastion Stonewool Board is supplied in shrink-wrapped packs of 6 boards (4.32 m²). Store packs flat, indoors or under waterproof cover, and off the ground until use.

Boards cut cleanly with a sharp knife or fine-tooth saw. Wear gloves, long sleeves and a P2 mask when cutting.

FIXINGS

The fixing pattern in this guide is a suggested minimum. It assumes each fixing provides a design capacity of at least 0.1 kN. The project designer must confirm it suits each project, including wind loads and the substrate.

Use polypropylene insulation fixings with a head diameter of at least 60 mm, suited to the masonry or concrete substrate, such as Bastion Building Products BBP 60 or GFC TIF 60. Equivalent fixings are available from Iccons and Hilti.

EXPOSURE

Plan the build so boards are left exposed for as short a time as possible before the cladding goes on.

The boards absorb very little water and can withstand short periods of weather during construction. They are not designed to be left exposed for long periods and are not a weather barrier for the wall. Depending on the cladding and exposure, a protective membrane may be needed. The project designer should assess this.

Inspect the boards before the cladding is installed. Replace any that are damaged or contaminated.

Once the cladding is on, the ventilated cavity lets boards wetted during construction dry out.