AIS Party Wall Firestop Batt

AIS Party Wall Firestop Batts are rigid, non-combustible stonewool (rock mineral wool) batts engineered to seal and protect openings, junctions and linear gaps in fire-resistant separating elements. Manufactured from spun volcanic rock fibre bonded with a thermosetting resin at a nominal density of 80 kg/m³, the batt is dimensionally stable, water-repellent and retains its integrity at temperatures in excess of 1000 °C. Batts are supplied plain or with a reinforced aluminium foil facing on one side.

The rigid batt format friction-fits securely into head-of-wall gaps and, installed on its side and compressed, into control joints — maintaining continuity of the fire separation of inter-tenancy (party) walls and fire-rated floor slabs. A single layer of foil-faced batt protecting a 90 mm control joint in a 120 mm concrete slab achieved an FRL of –/240/120 when tested to AS 1530.4:2014 (CSIRO Certificate of Test No. 3880).



AIS Party Wall Firestop Batt — rigid non-combustible stonewool. Also available with foil facing (one side).

TYPICAL APPLICATIONS

- **Control / movement joints in fire-rated concrete slabs** — tested configuration, FRL –/240/120 (CSIRO Cert 3880)
- Head-of-wall firestopping between the top of fire-rated partitions and the underside of roof or floor structures [1]
- Wall-to-roof and wall-to-floor junction sealing to inter-tenancy / party walls [1]
- Separating elements in Class 1a–9 buildings, including commercial and industrial applications [1]
- Linear gap and opening infill within fire-rated separating elements
- Acoustic and thermal infill; general non-combustible packing where fire integrity is required

[1] The FRL of –/240/120 was determined for the tested control-joint configuration (see Fire Performance). For head-of-wall, wall-to-roof and other junction applications, the achievable FRL is a property of the complete separating system — support these applications with the tested/assessed detail of the wall system, a fire engineering assessment, or a Performance Solution under the NCC. Always confirm suitability, fixing method and the achievable FRL with the relevant authority before installation.

FEATURES & BENEFITS

- **Non-combustible** – stonewool core tested and NOT deemed combustible to AS 1530.1-1994 (CSIRO FNC13104; assessment FCO-3526)
- **Low fire hazard** – AS/NZS 1530.3 indices 0, 0, 0, ≤2 (CSIRO FCO-3532)
- **Tested FRL –/240/120** – to AS 1530.4:2014 protecting a 90 mm control joint in a 120 mm concrete slab (CSIRO Certificate of Test No. 3880)
- **Rigid friction fit** – 80 kg/m³ rigid batt gives a secure, single-layer friction fit with no mechanical fixings in the tested configuration
- **Thermal & acoustic** – R2.8 at 100 mm; open fibrous structure contributes sound absorption to the element
- **Foil-faced option** – reflective, low-emissivity, vapour-resistant facing (as fire-tested)
- **Dimensionally stable** – will not slump, rot or support vermin/ mould
- **Bio-soluble fibre** – manufactured from exonerated mineral wool

PRODUCT RANGE & DIMENSIONS

Product	Facing	Thickness (mm)	R-Value (m²K/W)	Length (mm)	Width (mm)	Batts / Pack	Coverage (m²/ pack)
Party Wall Firestop Batt — 150	Plain / foil (one side)	100	2.8	1200	150	12	2.16
Party Wall Firestop Batt — 168	Plain / foil (one side)	100	2.8	1200	168	5	1.01

Select the 150 mm or 168 mm width to fully fill the head-of-wall gap. Coverage per pack = length × width × batts per pack. For product codes, current facing availability and non-standard sizes, contact AIS.

PHYSICAL & THERMAL PROPERTIES

Property	Test / Reference Standard	Unit	Performance
Material	—	—	Bio-soluble stonewool (Ca-Mg-Al-silicate rock fibre)
Nominal density	EN 13470	kg/m³	80 (as fire-tested — CSIRO FNC13104 / FSP 2384)
Melting point	ASTM E794	°C	>1000
Thermal conductivity (λ, mean 23 °C) [1]	AS/NZS 4859.1	W/m·K	≈ 0.036
Thermal resistance (R-Value), 100 mm	AS/NZS 4859.1	m²K/W	2.8
Maximum service temperature [2]	—	°C	≈ 750 (core fibre)
Water vapour / moisture behaviour	—	—	Non-hygroscopic, water-repellent

[1] Thermal conductivity derived from the declared 100 mm R-Value (λ = 0.100 m ÷ 2.8 m²K/W). [2] Indicative core-fibre service temperature — confirm against application. Values to be verified against the current AIS test records before formal specification.

FIRE PERFORMANCE

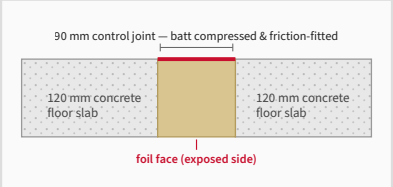
The stonewool core is inorganic and non-combustible. In service the batt is used to maintain the continuity of a fire-resistant separating element; the fire resistance level (FRL) achieved is a property of the complete tested or assessed system, not of the batt in isolation.

Characteristic	Test Method	Result / Status
Combustibility — stonewool core (80 kg/m³)	AS 1530.1-1994	NOT deemed combustible (CSIRO Test FNC13104); assessed non-combustible (CSIRO FCO-3526)
Early fire hazard indices — unfaced [1]	AS/NZS 1530.3-1999	0, 0, 0, 1 (CSIRO FCO-3532)
Early fire hazard indices — foil-faced [1]	AS/NZS 1530.3-1999	0, 0, 0, ≤2 (CSIRO FCO-3532)
Group Number (wall & ceiling lining)	AS 5637.1 / NCC 2022	Not required — see note
Fire resistance level (FRL) [2]	AS 1530.4:2014	–/240/120 — tested control-joint configuration (CSIRO Cert 3880)

Combustibility — CSIRO Certificate of Test FNC13104. Five specimens of AIS Stonewool 80 (80 kg/m³ calcium-magnesium-aluminium-silicate fiberised bio-soluble rock) were tested by CSIRO to AS 1530.1-1994 on 12 September 2023. Mean duration of sustained flaming was 0 s and mean mass loss 3.71%; the material is **NOT deemed combustible** according to the criteria of Clause 3.4 of AS 1530.1-1994. In addition, CSIRO Assessment FCO-3526 assesses unfaced AIS stonewool as non-combustible for the purpose of NCC 2022 Vol 1 & 2 Clause A5G3(d) across a density range of 40–175 kg/m³ and thickness 10–200 mm (valid to 30 November 2028).

Early fire hazard — CSIRO Assessment FCO-3532. Both the unfaced and foil-faced AIS stonewool are assessed by CSIRO as achieving AS/NZS 1530.3-1999 indices of 0, 0, 0, ≤2 (Ignitability / Spread of Flame / Heat Evolved / Smoke Developed) when exposed from either side, for the purpose of NCC 2022 Clause A5G3(1)(d) and Specification 3. The assessment covers density 40–175 kg/m³ and thickness 10–200 mm, and includes specimens incorporating holes, joints and perforations (CSIRO FNE 13131 / FNE 13134). Assessment valid to 28 February 2029.

Fire resistance — Certificate of Test No. 3880 (CSIRO, FSP 2384). Tested to AS 1530.4:2014 Section 10 (service penetrations and control joints) on 4 July 2023. The specimen comprised a 1600 mm long × 90 mm wide control joint formed in a 120 mm thick reinforced-concrete floor slab, protected with a single layer of 90 mm wide × 120 mm thick, 80 kg/m³ foil-faced rigid AIS Party Wall Firestop Batt. The batt was compressed and friction-fitted into the joint, finishing flush with both the underside and the unexposed face of the slab, and incorporated a single butt joint at mid-span. Performance observed: Structural Adequacy – not applicable; Integrity – no failure at 241 minutes; Insulation – 215 minutes — achieving an **FRL of –/240/120** for the purpose of the Building Regulations in Australia. The FRL applies when the system is exposed to fire from the same direction as tested; the 120 mm slab itself carries an established FRL of –/240/120 per Table 5.5.1 of AS 3600:2018, and the maximum FRL of any specimen cannot exceed that of the slab in which it is installed.



Tested configuration — batt compressed into a 90 mm control joint in a 120 mm concrete slab (Cert 3880).

NCC context. Under the National Construction Code, walls and floors separating sole-occupancy units (e.g. attached Class 1a dwellings and Class 2/3 units) must achieve a required FRL — commonly 60/60/60. AIS Party Wall Firestop Batt is used to seal head-of-wall gaps and control

joints so the required FRL and smoke separation of the separating element are not compromised. The batt must be installed in accordance with the fixing detail of the tested or assessed system.

[1] Index order: Ignitability (0–20) / Spread of Flame (0–10) / Heat Evolved (0–10) / Smoke Developed (0–10). The unfaced core is non-combustible to AS 1530.1, which deems it to satisfy the reaction-to-fire (lining) provisions without a Group Number — non-combustibility is a higher classification than Group 1. [2] FRL determined for the specific control-joint configuration described in Certificate of Test No. 3880 (CSIRO, 2023; investigation report FSP 2384); the FRL applies to that tested configuration. The foil-faced roll/blanket is a separate product with separate test evidence (FRL –/240/240, CSIRO Cert 2073) — document the product actually used.

ACOUSTIC PERFORMANCE

Stonewool is an effective sound-absorbing infill. Installed within a separating junction or joint, the batt's open fibrous structure and high airflow resistivity dampen airborne sound and support the acoustic separation (R_w / R_w+C_{tr}) required of inter-tenancy elements under the NCC. As with fire resistance, the achieved acoustic rating is a property of the complete separating system.

Typical sound absorption coefficients for unfaced 100 mm stonewool of this class (ISO 354 / ASTM C423, Type A direct mount):

Frequency (Hz)	125	250	500	1000	2000	4000	NRC
Absorption coefficient, α_s [1]	0.35	0.80	1.00	1.00	1.00	1.00	≈ 0.95

[1] Typical / indicative values for 100 mm, 80 kg/m³ stonewool — not a test result for this product; confirm by ASTM C423 / ISO 354 testing before specification. The foil-faced variant performs differently: the reflective foil reduces mid-to-high frequency absorption, giving a materially lower NRC, so the unfaced values above must not be applied to the foil-faced product.

FOIL FACING (F VARIANT)

The foil-faced variant carries a reinforced aluminium foil laminate on one face, providing a reflective low-emissivity surface, a vapour/moisture-resistant barrier and added tensile strength for handling. The facing comprises an aluminium foil (nominal 18 µm) over a fibreglass scrim (nominal 95 µm), bonded to the stonewool with a polyethylene adhesive at a nominal 25 g/m². During AS/NZS 1530.3 testing the aluminium facing remained intact, did not ignite and screened the core (CSIRO FCO-3532), and it was the foil-faced batt that achieved the –/240/120 result under AS 1530.4 (Cert 3880). In firestop applications present the foil to the exposed face and seal facing joints with AIS reinforced foil tape to maintain continuity.

STANDARDS & TEST METHODS REFERENCE

Standard	What it evaluates
AS 1530.1-1994	Combustibility test for materials — tested under CSIRO FNC13104 (AIS Stonewool 80) and assessed under CSIRO FCO-3526
AS/NZS 1530.3-1999	Early fire hazard indices — ignitability, spread of flame, heat evolved, smoke developed (assessed under CSIRO FCO-3532 for unfaced & foil-faced AIS stonewool)
AS 1530.4:2014	Fire-resistance test of building elements, Section 10: service penetrations and control joints — determines FRL (Certificate of Test No. 3880 / FSP 2384)
AS 3600:2018	Concrete structures — Table 5.5.1 establishes the FRL of the concrete slab in the tested system
AS 5637.1	Determination of fire hazard properties — assigns Group Number (1–4) for combustible linings; non-combustible materials are exempt
AS/NZS 4859.1	Thermal insulation materials — determination of material R-Value / conductivity
ASTM E794	Melting and crystallisation temperature by thermal analysis
EN 13470	Determination of the apparent (nominal) density of insulation products
ASTM C423 / ISO 354	Sound absorption coefficient / NRC in a reverberation room

SUPPORTING DOCUMENTATION

The following evidence is available from AIS to support specification and approval:

Document	Issuer	Scope
Certificate of Test No. 3880 (report FSP 2384)	CSIRO Infrastructure Technologies	AS 1530.4:2014 fire-resistance test — batt protecting 90 mm control joint in 120 mm concrete slab; FRL –/240/120
Certificate of Test FNC13104	CSIRO (NATA-accredited)	AS 1530.1-1994 combustibility test — AIS Stonewool 80 (80 kg/m^3): NOT deemed combustible
Assessment FCO-3526	CSIRO	Non-combustibility assessment for NCC A5G3(d) — density 40–175 kg/m^3, thickness 10–200 mm; valid to 30 Nov 2028
Assessment FCO-3532	CSIRO	AS/NZS 1530.3 early fire hazard indices 0,0,0,≤2, unfaced & foil-faced; valid to 28 Feb 2029
AIS Stonewool Installation Guide	AIS	Installation detail for party wall firestop batt & roll — head-of-wall and control-joint applications

Copies available on request from AIS — sales@ais-group.com.au. No CodeMark certificate or third-party appraisal is currently held for this product.

HANDLING, STORAGE & INSTALLATION

Storage

- Store flat and dry, off the ground, in original packaging until use
- Protect from prolonged weather exposure, water and mechanical damage
- Store batts dry to maintain the declared R2.8

Installation

- Head-of-wall: select the 150 mm or 168 mm width to fully fill the gap; press firmly for a secure friction fit
- Cut to length with an insulation saw or sharp knife; butt batts tightly end-to-end with no through-paths
- Control joints: install the batt on its side so the 100 mm face compresses into the joint (~10% — tested 100 mm into a 90 mm joint), trimmed to element depth, flush both faces
- Single-layer applications are preferred and match the tested configuration
- Foil-faced: present the foil to the exposed face; seal joints with AIS reinforced foil tape
- Install per the fixing detail of the tested/assessed fire-rated system

HEALTH, SAFETY & SUSTAINABILITY

AIS stonewool is manufactured from bio-soluble mineral wool fibres that meet the exoneration criteria for man-made vitreous (silicate) fibres and are not classified as carcinogenic. The mechanical effect of fibres in contact with skin may cause temporary itching — rinse in cold water before washing. Follow the product SDS: cover exposed skin, use gloves, eye protection and a dust mask when cutting, and ventilate the work area. The material is inert, rot-proof, does not sustain vermin or mould, contains no ozone-depleting agents, has negligible global-warming potential in use, and is recyclable at end of life.

Health & safety classification statements to be confirmed against the current AIS Safety Data Sheet for this product.

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