

Non-combustible rock wool pipe section — foil-faced Group 1-S, low chloride, cut to order in NZ

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Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include self-assessment and technical information by manufacturer



AccuThermax™ confirms that this minimum level of assurance has been met or exceeded by the following:

Accumen Shapes Ltd

[BPIR Declaration — AccuThermax™ Stonewool PPS - Rev 1.0](#)



The following information has been provided by AccuThermax™ demonstrating how this product complies with the [Building Product Information Requirements](#).

Technical Statement

Product Class

CLASS 1

Product Description

AccuThermax™ Stonewool PPS is a rigid, non-combustible preformed pipe section fabricated from natural basalt and dolomite rock (stone) mineral wool at a nominal density of 110 kg/m³. Sections are cut in New Zealand by Accumen Shapes Ltd from imported low-chloride rock wool block and supplied slit along one wall for fitting over the pipe — foil-faced (reinforced aluminium-foil vapour facing), plain (unfaced), or as curved segments for large-diameter pipework and vessels. The product conforms to ASTM C547 pipe-form and ASTM C592 Type II requirements, independently tested by SGS. The base rock wool is non-combustible to AS 1530.1:2024 and ASTM E136, with surface burning FSI 0 / SDI 0 (ASTM E84), and performs at hot-face temperatures to approximately 650°C (ASTM C411/C447, 96-hour exposure at 649°C). Where internal surface-finish requirements apply, foil-faced sections are classified Group 1-S under NZBC C/VM2 Appendix A Table A2, supported by CSIRO Certificate of Assessment evidence. Thermal conductivity of the base rock wool is independently measured to ASTM C177: 0.034 W/m·K at 24°C mean, with measured values from -4°C to 371°C published in the R-Value schedule. Supplied as a low-chloride grade — leachable chloride 6 µg/g to ASTM C871 — the product passes the ASTM C795/C692 stress-corrosion drip test over Type 304 austenitic stainless steel, suiting stainless pipework in geothermal, dairy and process installations. It is water-repellent (ASTM C1104), dimensionally stable, rot- and vermin-proof, and asbestos-free; fibres are classified IARC Group 3. Fabricated to order in Penrose, Auckland: bores cut to ASTM C585 for steel (BS 3600) and copper (NZS 3501) pipework, wall thicknesses 25, 38, 50 and 65 mm standard (greater to specification), 1.0 m nominal sections, with fast turnaround on non-standard bores. Technical Data Sheet, R-Value schedule, Group Number Statement, BPIR declaration, SDS and independent test reports are available to specifiers and BCAs.

Scope of use

AccuThermax™ Stonewool PPS is intended for the thermal and acoustic insulation of hot pipework in building services and industrial applications: steam, condensate and hot-water lines, thermal-oil systems, exhaust and flue pipework, and high-temperature process services across power generation, petrochemical, dairy and food processing, geothermal and commercial plant-room installations. Foil-faced sections provide a clean vapour-retarding finish and are the preferred form where a Group 1-S internal surface finish is required; plain sections are typically used beneath cladding and on higher-temperature lines; curved segments suit large diameters and vessels. The low-chloride grade (6 µg/g, ASTM C871; passes ASTM C795/C692) is suited to use over austenitic stainless steel. Compatible with mild steel, carbon steel, stainless steel and copper pipework (bores to ASTM C585). Service temperature limits: rock wool core to approximately 650°C hot-face (ASTM C411/C447); foil-faced sections limited to 250°C at the facing — use plain sections beneath cladding above this. Limitations: the product is not structural and provides no load-bearing function. The Group 1-S classification applies to the foil-faced product with the specified facing system only. Not intended for below-ambient or condensation-controlled services without a project-designed vapour-barrier system. Install per Accumen's published guidance, with weatherproof cladding on external or trafficable installations.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- Clause B2 Durability:** Performance B2.3.1(b), B2.3.1(c)
 B2 Durability — B2.3.1(b), (c): Acceptable Solution B2/AS1 (in-service history of comparable rock mineral wool insulation); AccuThermax™ Stonewool PPS TDS v2.1, July 2026 —



masterspec partner

Company Contact Details



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- Clause C3 Fire affecting areas beyond the fire source:** Performance C3.4(a)
 C3 Fire — C3.4(a): Verification Method C/VM2, Appendix A, Table A2. Evidence: CSIRO Certificate of Assessment No. 1851 (report FNKI 10866), issued 17 September 2013 — Group 1-S, foil-faced pipe section (facing-system entitlement record held, 1 July 2026); SGS SDFTS25004826R02 (AS 1530.1:2024, non-combustible), original issue 20 Aug 2025, current revision 21 Aug 2025 (R02); manufacturer applicability statement 60–110 kg/m³, 13 July 2026; AccuThermax™ Stonewool Group Number Statement v2, July 2026. URL: accumen.co.nz product documentation page.
- Clause F2 Hazardous building materials:** Performance F2.3.1
 F2 — F2.3.1: AccuThermax™ Stonewool PPS SDS v1, July 2026 — accumen.co.nz.
- Clause G6 Airborne and impact sound:** Performance G6.3.1
 G6 — G6.3.1: AccuThermax™ Stonewool PPS TDS v2.1, July 2026 — accumen.co.nz.
- Clause H1 Energy efficiency :** Performance H1.3.4(b), H1.3.6(a)
 H1 — H1.3.4(b), H1.3.6(a): H1/AS1, H1/AS2; H1/VM1–VM3. Evidence: SGS SHIN2605001299CM03 (ASTM C177 thermal conductivity, base rock wool board, measured –4°C to 371°C), issued 10 July 2026; SGS TJIN2411000702CM01-1 (ASTM C547 pipe-form conformity); SGS XMIN2512002768CM01 (AS/NZS 4859.1:2018), issued 17 Dec 2025; AccuThermax™ Stonewool PPS R-Value schedule v2, July 2026. URL: accumen.co.nz product documentation page.

Notes

AccuThermax™ Stonewool PPS contributes to the ticked clauses as follows. B2.3.1(b)/(c): inorganic, rot- and vermin-proof mineral fibre; durability period assessed per project accessibility. C3.4(a): base rock wool non-combustible to AS 1530.1:2024 and ASTM E136 (independent SGS reports held), FSI 0 / SDI 0 (ASTM E84); foil-faced sections classified Group 1-S under C/VM2 Appendix A Table A2 with CSIRO Certificate of Assessment evidence — refer to the Group Number Statement; classification applies to the specified facing system only. F2.3.1: not classified as hazardous (HSNO/GHS); asbestos-free; fibres IARC Group 3 — refer SDS. G6.3.1: dense 110 kg/m³ sections contribute acoustic absorption on services pipework. H1.3.4(b)/H1.3.6(a): limits heat loss from hot water, steam and HVAC distribution; conductivity independently measured to ASTM C177 (0.034 W/m·K at 24°C); thickness selected by the designer per the R-Value schedule. Installed-system compliance rests with the design professional.

Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

C3.4(a): Base rock wool non-combustible to AS 1530.1:2024 (SGS report held; manufacturer statement confirms applicability across the 60–110 kg/m³ range), corroborated by ASTM E136; E84 FSI 0 / SDI 0. Foil-faced sections classified Group 1-S under C/VM2 Appendix A Table A2 — the tested facing system of CSIRO COA 1851 (FNKI 10866) over a non-combustible substrate of equal or greater density (FNC10854); full derivation in the Group Number Statement. Applies to the specified facing system only. B2.3.1(b)/(c): Inorganic, rot- and vermin-proof fiber per the B2/AS1 in-service history approach; durability period assessed against accessibility. F2.3.1: Not classified as hazardous (HSNO/GHS); asbestos-free; fibres IARC Group 3 — refer SDS. G6.3.1: Dense 110 kg/m³ sections contribute acoustic absorption on services pipework. H1.3.4(b)/H1.3.6(a): Limits heat loss from hot water, steam and HVAC services via H1/AS1, H1/AS2 and H1/VM1–VM3. Conductivity measured to ASTM C177 (0.034 W/m·K at 24°C; –4°C to 371°C); AS/NZS 4859.1 (SGS); ASTM C547/C592 Type II conformity. Thickness per the R-Value schedule and project energy design.

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:



Accumen Shapes Ltd

[BPIR Declaration — AccuThermax™ Stonewool PPS - Rev 1.0](#)

Use in Service History

Rock (stone) mineral wool preformed pipe insulation of this class has an extensive international in-service history spanning several decades across power generation, petrochemical, marine, dairy and food processing, and commercial building services — insulating steam, condensate, thermal-oil, exhaust and hot-water pipework. This underpins B2/AS1 in-service history assessments for mineral wool insulation. The foil-faced format's Group 1-S facing system has CSIRO assessment history dating from 2013 (Certificate of Assessment No. 1851). The rock wool supplied for AccuThermax™ Stonewool PPS was independently tested by SGS (2024–2026) across combustibility, hot-surface performance at 649°C, thermal conductivity from –4°C to 371°C, stress corrosion over Type 304 stainless steel and chloride content — verifying behaviour consistent with the established performance of the material class. Fabricated and supported in NZ by Accumen Shapes Ltd, with batch traceability on all supply.

Product Criteria

Design requirements

Select facing by duty: foil-faced sections where a clean vapour-retarding finish or Group 1-S internal surface finish is required (facing limited to 250°C); plain sections beneath cladding and on higher-temperature lines to ~650°C hot-face; curved segments for large diameters and vessels. Select wall thickness against the project thermal design (e.g. BS 5422 schedules or the project energy brief) using the published R-Value schedule — base-wool conductivity independently measured to ASTM C177, 0.034 W/m·K at 24°C mean, rising with temperature (measured to 371°C). Standard walls 25, 38, 50 and 65 mm; greater thicknesses built up in staggered layers. Bores to ASTM C585 for steel (BS 3600) and copper (NZS 3501); non-standard bores fabricated to order. Over austenitic stainless steel, specify the low-chloride grade (6 µg/g, ASTM C871; passes ASTM C795/C692). Not structural. Design support and thickness selections from Accumen Technical Services from a pipe schedule.

Installation requirements

Open the slit section over the pipe; butt sections tightly and stagger circumferential joints on multi-length runs. Secure with stainless or galvanised bands at maximum 300 mm centres; on foil-faced product, seal all joints and band lines with the factory-matching self-adhesive foil tape to maintain the vapour facing. Apply in two or more staggered layers for walls above single-section capacity or service temperatures above 250°C. Over stainless steel where prolonged moisture contact is foreseeable, wrap the pipe with aluminium foil as a sacrificial layer before installation. Finish external, plant-room and trafficable installations with a weatherproof metal jacket, with expansion provisions on long hot runs. Stage first heat-up at approximately 50°C per hour with ventilation to allow residual binder volatiles to clear. Cut with sharp hand tools; wear long sleeves, gloves, safety glasses and a P1/P2 dust mask when cutting — refer to the Safety Data Sheet. Store dry, under cover.

Maintenance requirements

The insulation itself is inert, inorganic, rot- and vermin-proof and requires no active maintenance; achieving the B2 durability period depends on protecting it in service. Inspect insulation, jacketing, foil facing and joints annually — and after any mechanical works in the area — for damage, displaced cladding, open joints or water ingress; repair promptly. Repair damaged foil facing and re-tape joints with the factory-matching foil tape to maintain the vapour facing and the Group 1-S surface where applicable. Replace any sections that have been saturated or mechanically damaged; wet insulation must not be left in place over pipework. Maintain external weatherproof jacketing and re-seal penetrations after service access. The product is not a wearing or trafficable surface — protect from foot traffic and impact. Durability period per B2.3.1(b)/(c) is assessed against the accessibility and replaceability of the specific installation.

Warrantees

Accumen Shapes Ltd provides a supply-only (not install) product warranty in respect of AccuThermax™ Stonewool PPS, ex-factory, limited to the quality of the goods supplied, in addition to the guarantees that apply under the Consumer Guarantees Act 1993 and the implied conditions of the Sale of Goods Act where applicable. The warranty covers product conforming to the published Technical Data Sheet when stored, handled, installed and maintained in accordance with Accumen's published guidance; it does not extend to installation workmanship, to product damaged, saturated or modified after delivery, or to use outside the published scope. Batch traceability is maintained on all supply. Full warranty terms are available at accumen.co.nz or on request.

Company Product Information

Environmental

AccuThermax™ Stonewool PPS is fabricated from natural basalt and dolomite rock, an abundant mineral resource, and is chemically inert, stable and insoluble in the environment. It is non-combustible and contributes no fuel to fire. The product is asbestos-free and not classified as hazardous under HSN0/GHS; mineral wool fibres are classified IARC Group 3 (not classifiable as to carcinogenicity to humans) — refer to the Safety Data Sheet. NZ fabrication minimises finished-product freight and allows offcut recovery. In service, the insulation reduces energy consumption and associated carbon emissions from heated pipework for the life of the installation, typically repaying its embodied energy many times over. It contains no ozone-depleting substances and uses no blowing agents. Offcuts and end-of-life material are inert, non-putrescible solid waste, disposable as general construction waste to an authorised facility per local council requirements; minimise dust when handling waste.

Relationships



New Zealand Made

Building Product Information Requirements

Manufacturer

Legal Trading Name:

Accumen Shapes Ltd

Business Email:

info@accumen.co.nz

Company Website:

www.accumen.co.nz

Contact Number/s:

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Product Identifier

ACCUTHERMAX™ STONEWOOL PPS IS A CLASS 1 (BATCH-PRODUCED) BUILDING PRODUCT, FABRICATED IN STANDARD BORE AND WALL COMBINATIONS WITH NON-STANDARD SIZES CUT TO ORDER UNDER THE SAME IDENTIFICATION. PRODUCTS ARE IDENTIFIED BY THEIR PRODUCT LABEL NAME — E.G. "ACCUTHERMAX™ STONEWOOL PPS, FOIL-FACED, 110 KG/M³, [BORE] × 50 MM WALL × 1.0 M" — TOGETHER WITH A BATCH NUMBER AND PRODUCTION DATE CARRIED ON PALLET LABELS. BATCH NUMBERS ARE RECORDED BY ACCUMEN SHAPES LTD AGAINST EACH PRODUCTION RUN AND SOURCE-BLOCK SHIPMENT, PROVIDING TRACEABILITY FROM DELIVERED SECTIONS BACK TO THE RAW-MATERIAL BATCH AND ITS SUPPORTING TEST DOCUMENTATION. THE PRODUCT NAME AND BATCH NUMBER APPEAR ON LABELS, DELIVERY DOCUMENTATION AND INVOICES.

Warnings

This product has no warnings associated with it.



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