

PRODUCT NAME

Metalcraft Roofing's- **SIGMA-BATTEN™**

PRODUCT LINE

N/A

PRODUCT DESCRIPTION AND ITS INTENDED USE

SIGMA-BATTEN™ is a non-combustible structural cavity batten and forms part of a Metalcraft cladding system, extruded from aluminium alloy grade: 6061-T6. The Top-Hat section comprises of a wall thickness of 3.5mm. SIGMA-BATTEN™ can be used as a vented and drained cavity.

The design of the SIGMA-BATTEN™, allows for horizontal continuous runs.

INTENDED USE

Metalcraft Roofing's SIGMA-BATTEN™ has been developed primarily to provide a fixing substrate for Metalcraft's longrun profiles when they are laid as vertical wall cladding.

ALTERNATIVE USE

Sigma-Batten™ can be used in conjunction with other cladding types however the nominated cladding supplier and Architect must satisfy themselves as to the suitability, durability and performance of the SIGMA-BATTEN™. Compliance with B1 must be signed off by a Professional engineer (PS1) and compatibility requirements, suitability in exposure zones as per Tables 20,21,&22 of E2/AS1 considered.

MATERIAL SIGMA BATTEN:

6061-T6 Aluminium Alloy.

FINISH:

Mill Finish.

PRODUCT WARRANTY:

15 YEARS PRODUCT WARRANTY that the extruded SIGMA-BATTEN™ section will retain its original integrity for more than 15 years. See limitations on the use of the product.

LENGTHS

Manufactured in 6000mm lengths.

LEADTIMES

Allow 5-7 weeks from placement of order.

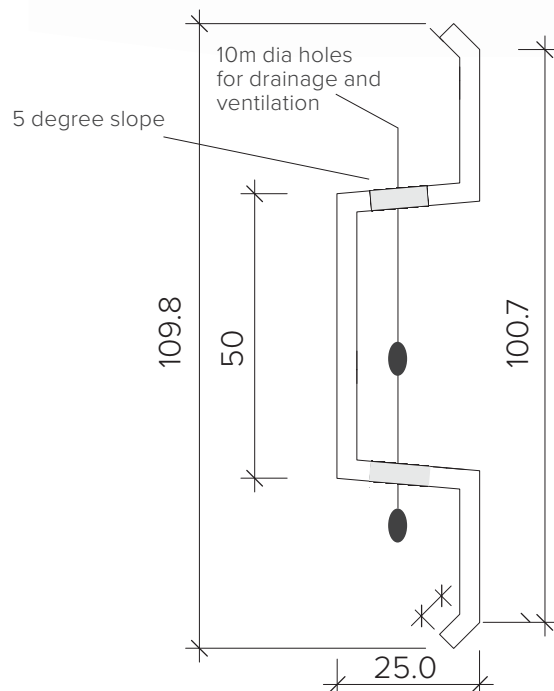
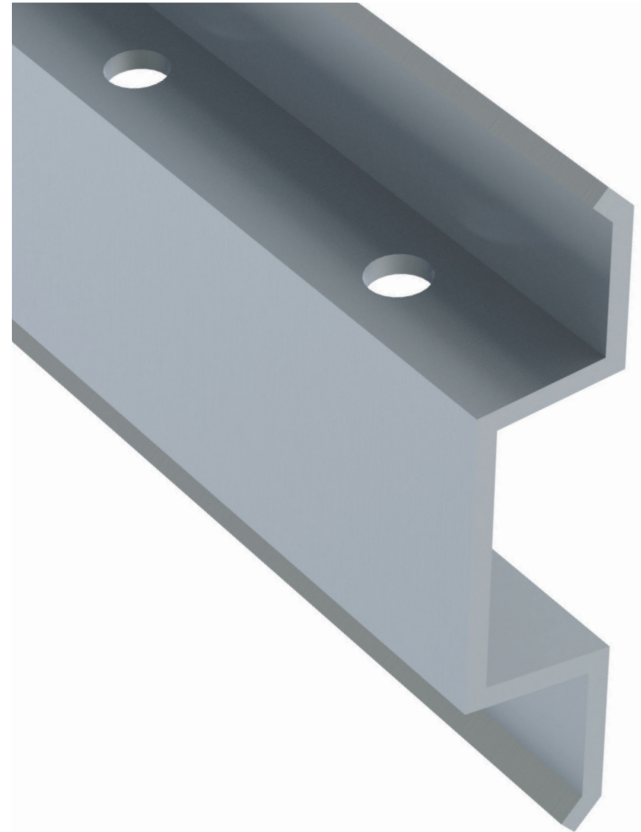
BPIS INCLUSION / EXCLUSION

This BPIS includes Metalcraft Roofing's SIGMA-BATTEN®. Metalcraft Roofing do supply fasteners, underlay and other products as part of the vertical wall cladding supply, however demonstration of compliance of these items are not the responsibility of Metalcraft Roofing. Please refer to: Other products supplied by Metalcraft roofing for a list of those items and links to manufacturers.

HANDLING AND STORAGE

Safe handling and storage of Metalcraft Roofing's SIGMA-BATTEN™ whether on-site or off-site, is the responsibility of building contractor.

PRODUCT IDENTIFIER



All dimensions are nominal.

RELEVANT BUILDING CODE CLAUSES:

B1 STRUCTURE- B1.3.3 (h), B1.3.4(a,b,c,d,e)**B2 DURABILITY-B2.3.1 (b)(i) B2.3.2 (a)****C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE -C3.7 (a)****E2 EXTERNAL MOISTURE - E2.3.2, E2.3.5 and E2.3.6.****F2 HAZARDOUS BUILDING MATERIALS -F2.3.1**

STATEMENT ON HOW THE BUILDING PRODUCT IS EXPECTED TO CONTRIBUTE TO COMPLIANCE:

Metalcraft Roofing's SIGMA-BATTEN™ Top- Hat section is used in combination with Metalcraft Roofing's vertical cladding, fasteners and if designed, used and installed correctly will contribute to meeting the following performance requirements of the NZ Building Code.

B1.3.3 (h), B1.3.4(a,b,c,d,e)

Metalcraft Roofing has engaged Redco Engineering as third party Professional Engineers to confirm and develop the loadspan design tables and capacity of the SIGMA-BATTEN™. Download from www.metalcraftgroup.co.nz.

Metalcraft Roofing's SIGMA-BATTEN™ must be signed off by a professional engineer and fixings, spans, centres confirmed. A PS1 is required to demonstrate compliance with B1 of the NZBC. Nominated fixing screw types must consider compatibility, refer Tables 20, 21 & 22 of E2AS1 with the SIGMA-BATTEN™ and main structure.

Metalcraft Roofing's SIGMA-BATTEN™ are manufactured from McKechnie® Aluminium Solutions Limited. 36 Paraiti Road, Bell Block, New Plymouth, New Zealand.

McKechnie® Aluminium Solutions Limited confirms that the extruded aluminium supplied to Metalcraft have been manufactured to the conditions of:

1. AS/NZS 1866 – 1997: Aluminium and Aluminium Alloys -Extruded Rod, Bar, Solid and Hollow Shapes
2. AS/NZS 1866 – 1997: Aluminium and Aluminium Alloys -Drawn Tubes.

Under the controls of:

1. ISO 9001: Quality Management Systems
2. ISO 14001: Environmental Management Systems.

For more information on McKechnie® <https://www.mckechnie.co.nz>

B2.3.1 (b)(i), B2.3.2 (a)

Metalcraft Roofing's SIGMA-BATTEN™ Contact with corrosive and incompatible materials, prolonged exposure to damp or corrosive internal environments, or excessive periods of wet stacking must be avoided as per Table 20,21 & 22 of E2/AS1.

Fixings of Metalcraft Roofing's SIGMA-BATTEN™ to be in accordance with Table 20,21 & 22 of E2/AS1 and Professional Engineers PS1. Contact with corrosive and incompatible materials, prolonged exposure to damp or corrosive internal environments, or excessive periods of wet stacking must be avoided as per Table 20,21 & 22 of E2/AS1.

Metalcraft Roofing's SIGMA-BATTEN™ will contribute to meeting the requirement if designed, used and installed correctly.

C3.7 (a)

Metalcraft Roofing's SIGMA-BATTEN™ is extruded from solid 3.5mm aluminium alloy and is classified as non combustible.

E2.3.2, E2.3.5 and E2.3.6

Metalcraft Roofing's SIGMA-BATTEN™ will contribute to meeting the requirement if designed, used and installed correctly. When installed with vertical cladding then alternative details complying with the "4 D's" (Deflection, Draining, Drying and Durability) will also comply with the performance requirements of NZ Building Code.

F2.3.1

Metalcraft Roofing's SIGMA-BATTEN™ will meet the performance requirements of F2.3.1.

LIMITATIONS ON THE USE OF THE BUILDING

PRODUCT:

- Metalcraft Roofing's SIGMA-BATTEN™ can be used on SED projects. The Architect / Designer, or Professional Engineer must ensure that the relevant clauses of the New Zealand Building Code (NZBC) have been considered and that their design meets the requirements of the NZBC.
- Redco Engineering report is based on a 2-span continuous support. A project specific PS1 is required by Professional Engineer.
- Project specific details are required to be developed if they are not covered in this literature.
- When installed with vertical cladding then alternative details complying with the "4 D's" (Deflection, Draining, Drying and Durability) will also comply with the performance requirements of NZ Building Code.
- To be used in situations where there are no dissimilar metals or compatibility issues as per NZMRM Code of Practice and Table 20, 21 & 22 of E2/AS1.
- Stainless steel screws must avoid contact in sea-spray zone or corrosion zone D as per Table 21 of E2/AS1.
- Compatibility of the fixing screws with the aluminium SIGMA-BATTEN™ and or the structure it will fix into must be considered and approved by Architect, Designer and Professional Engineer as suitable for project environmental exposure zone and compatibility of Table 21 E2/AS1.
- Thermal break requirement must be determined by Architect / Designer.
- SIGMA-BATTEN™ has a Product Warranty of 15 years and manufactured by McKechnie Aluminium Solutions LTD and exclusions from their warranty include:
- McKechnie Aluminium Solutions LTD will not accept any liability for loss of integrity resulting from external influences including, but not limited to:
 - Inappropriate design of components for the structural requirements of the application.
 - Inappropriate design of assemblies allowing for the accumulation of moisture.
 - Oxidation of exposed surfaces initiated by component fabrication.
 - Bimetallic corrosion due to the use of unsealed screws, bolts or other fasteners.
 - Contact with caustic based products – concrete, mortar, texture coatings, etc

DESIGN REQUIREMENTS THAT WOULD SUPPORT

THE APPROPRIATE USE OF THE BUILDING

PRODUCT

- The Architect/ Designer / Engineer responsible for the project is responsible for ensuring that Metalcraft Roofing's SIGMA-BATTEN™ is suitable for the intended application and must verify that the design and use of the SIGMA-BATTEN™ complies with the NZBC.
- A project specific PS1 is required by Professional Engineer.
- Design and installation is as per the relevant NZ Building Code Clauses, NZS 3604:2011, NZMRM Code of Practice and alternative details complying with the "4 D's" (Deflection, Draining, Drying and Durability) will also comply with the performance requirements of NZ Building Code.
- Buildings that comply with NZS 3604:2011 and building height up to three storeys or 10 m.
- For SED building height may go above 10m, to max performance of the SIGMA-BATTEN™.
- Buildings designed in accordance with NSZ 1170:2:2002.
- Timber framed construction in accordance with NZS 3604:2011.
- Steel framed structures in accordance with NASH Standard Part 1:2016 Design Criteria - Alternative Solution and NASH Standard Part 2:2019 Light Steel Framed Buildings.
- Installation in accordance with Professional Engineers PS1.
- Thermal break requirement to be determined by design professional.
- Contact with corrosive and incompatible materials, prolonged exposure to damp or corrosive internal environments, or excessive periods of wet stacking must be avoided as per Tables 20, 21 & 22 of E2/AS1 and remains the responsibility of the Architect / Designer.
- A cavity vent strip must be installed at the bottom of all walls constructed using the drained and ventilated cavity construction method ad compliant with E2/AS1. Width must be 25mm to accommodate the SIGMA-BATTEN™ width.
- The SIGMA-BATTEN™ must be fixed to the timber or steel framing or Technform Thermal Isolator Clip as per Professional Engineer's PS1. Compatibility must also be considered with tables 20,21, & 22 of E2/AS1.
- The wall cavities must be drained every two floors to facilitate moisture drainage and ventilation.
- Th wall cavity must have a cavity closer to the underside 25mm, the same width as the SIGMA-BATTEN™ that allows for free drainage, ventilation and keeping out vermin. The top of the cavity must also have a cavity closer as per E2/AS1.
- Stainless steel screws must avoid contact in sea-spray zone or corrosion zone D.
- Only suitable with cladding types that have a 15 year durability. SIGMA-BATTEN™ will have the same durability of cladding types (15 years maximum) durability requirement of 15 years as per B2.3.2(a)

CLASS 1

REVISION VERSION 1.0 ISSUE DATE: SEPTEMBER 2024

INSTALLATION REQUIREMENTS

Installation should be carried out by a suitably qualified practitioner. Installation of Metalcraft Roofing's SIGMA-BATTEN™ in accordance with:

- Installation in accordance with Professional Engineer - PS1.

MAINTENANCE REQUIREMENTS

No maintenance requirements.

IS THE BUILDING PRODUCT/BUILDING PRODUCT LINE SUBJECT TO A WARNING OR BAN UNDER SECTION 26 OF THE BUILDING ACT 2004:

NO

Metalcraft Roofing's SIGMA-BATTEN™ is not subject to a warning or ban under the Building Act 2004.

SUPPORTING INFORMATION

The following documents can support demonstration of compliance of Metalcraft Roofing's SIGMA-BATTEN™ Top Hat extruded section with the NZ Building Code.

BUILDING ACT 2004

www.legislation.govt.nz

NZBC RELEVANT CLAUSES AND ACCEPTABLE SOLUTIONS NZS 3604:2011

www.building.govt.nz

Cited standards

www.standards.govt.nz

REDCO ENGINEERING STRUCTURAL REPORT LOADSPAN GRAPHS.

Download from:

www.metalcraftgroup.co.nz

MCKECHNIE® PRODUCT AND TECHNICAL INFORMATION.

6061 Technical Specification:

<https://www.mckechnie.co.nz/uploads/PDF/Technical-Specifications/Aluminium-Specifications/6061%20Revision%206.pdf?t=1726370920440>

Material Safety datasheet:

<https://www.mckechnie.co.nz/uploads/PDF/Technical-Specifications/MSDS/Safety-Data-Sheet-McKechnie-Aluminium-Solutions-6000-Series-Extruded-and-Anodized-Sections.pdf>

McKechnie® Aluminium Solutions Limited.
Quality management system conforming to ISO 9001:2015 and assessed by Telarc.

<https://www.mckechnie.co.nz/resources>

McKechnie® Aluminium Solutions Limited.
Environmental Management system conforming to ISO 14001:2015

<https://www.mckechnie.co.nz/resources>

McKechnie® Aluminium Solutions Limited - TOITU
Enviromark Diamond 12 Year:

https://www.mckechnie.co.nz/uploads/PDF/Warranty/Certificate_2023_McKechnie_Toitu%CC%84Enviromark_Diamond-12Year.pdf

McKechnie® Aluminium Solutions Limited - Sustainability.

<https://www.mckechnie.co.nz/sustainability>

CLASS 1

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**PLACE OF METALCRAFT SIGMA -BATTEN™
MANUFACTURE**

NEW ZEALAND

Metalcraft Roofing's SIGMA-BATTEN™ is extruded by McKechnie® Aluminium Solutions Limited.
36 Paraitē Road, Bell Block, New Plymouth, New Zealand

Metalcraft Roofing's SIGMA-BATTEN™ is available nationwide from all Metalcraft Roofing branches.

**OTHER METALCRAFT BRANCHES THAT CAN SUPPLY
SIGMA -BATTEN™**

METALCRAFT ROOFING -WHANGAREI
42-44 Rewa Rewa Road, Whangarei
09 470 0870
sales.whangarei@metalcraftroofing.co.nz

METALCRAFT ROOFING - AUCKLAND HOBSONVILLE
25 -27 Westpoint Drive, Hobsonville, Auckland
09 444 1813
orders.ns@metalcraftroofing.co.nz

METALCRAFT ROOFING -AUCKLAND EAST TAMAKI
24-26 Trugood Drive East Tamaki, Auckland
09 273 2820
orders.akl@metalcraftroofing.co.nz

METALCRAFT ROOFING -HAMILTON
9 Earthmover Cres, Burbush, Hamilton
07 849 3807
sales.hamilton@metalcraftroofing.co.nz

METALCRAFT ROOFING -TAURANGA
42 Poturi St, Tauriko, Tauranga
07 575 7032
sales.tauranga@metalcraftroofing.co.nz

METALCRAFT ROOFING -NEW PLYMOUTH
218 De Havilland Drive, Bell Block, New Plymouth
06 755 2113
sales.newplymouth@metalcraftroofing.co.nz

METALCRAFT ROOFING -PALMERSTON NORTH
76 Malden Street, Palmerston North
06 358 9149
sales.palmerston@metalcraftroofing.co.nz

METALCRAFT ROOFING -HASTINGS
1454A Omahu Road, Hastings
06 873 9020
sales.hastings@metalcraftroofing.co.nz

METALCRAFT ROOFING -ROTORUA
15 Monokia Street, Rotorua
07 350 1138
sales.rotorua@metalcraftroofing.co.nz

METALCRAFT ROOFING -WELLINGTON
201 Gracefield Rd, Seaview, Lower Hutt
04 566 2253
orders.wgtn@metalcraftroofing.co.nz

METALCRAFT ROOFING -CHRISTCHURCH
85 Columbia Ave, Hornby, Christchurch
03 349 7350
sales.christchurch@metalcraftroofing.co.nz

METALCRAFT ROOFING -CROMWELL
20 McNulty Road, Cromwell
03 445 4180
sales.cromwell@metalcraftroofing.co.nz

CLASS 1

REVISION VERSION 1.0 ISSUE DATE: SEPTEMBER 2024

LEGAL ENTITIES:**STEEL BUILDING PRODUCTS CENTRAL LIMITED**

NZBN: 9429032296389

Level 1, 30 Highbrook Drive, East Tamaki Auckland

TRADING NAME / ADDRESS FOR SERVICE:

Metalcraft Roofing - Hamilton

Metalcraft Roofing - New Plymouth

STEEL BUILDING PRODUCTS NORTHERN LIMITED

NZBN: 9429032461398

Level 1, 30 Highbrook Drive, East Tamaki Auckland

TRADING NAME / ADDRESS FOR SERVICE:

Metalcraft Roofing - East Tamaki

Metalcraft Roofing - Whangarei

STEEL BUILDING PRODUCTS SOUTHERN LIMITED

NZBN: 9429036306183

Level 1, 30 Highbrook Drive, East Tamaki Auckland

TRADING NAME / ADDRESS FOR SERVICE:

Metalcraft Roofing - Hastings

Metalcraft Roofing - Palmerston North

Metalcraft Roofing - Wellington

STEEL BUILDING PRODUCTS SOUTH ISLAND LIMITED

NZBN: 9429032296303

Level 1, 30 Highbrook Drive, East Tamaki Auckland

TRADING NAME / ADDRESS FOR SERVICE:

Metalcraft Roofing - Cromwell

Metalcraft Roofing - Christchurch

METAL LINE ROOFING LIMITED

NZBN: 9429031709583

Level 1, 30 Highbrook Drive, East Tamaki Auckland

TRADING NAME / ADDRESS FOR SERVICE:

Metalcraft Roofing - Hobsonville

Metalcraft Roofing - Rotorua

DISCLAIMER

This Building Product Information Sheet must be read in conjunction with all cited documents.

Metalcraft Roofing states that the product will, if installed in accordance with the technical data, specifications, and advice prescribed by Metalcraft Roofing comply with the relevant provisions of the building code and satisfy our obligation to meet S14G of the Building Act 2004.

It remains the responsibility of all other professional parties to ensure they satisfy their own obligation of the Building Act 2004.

As part of Metalcraft Roofing's policy of continued improvement, final specifications may vary from those contained in this publication. The company reserves the right at any time and without notice to change the design, materials or features and withdraw products from the market without incurring any liability whatsoever.

**SIGMA-BATTEN™ SOURCED FROM**

McKechnie® Aluminium Solutions Limited.

36 Paraite Road, Bell Block, New Plymouth, New Zealand

OTHER PRODUCTS SUPPLIED BY METALCRAFT ROOFING

Metalcraft Roofing also sell other products to complement the installation of SIGMA-BATTEN™

Please note the correct selection of these products for the project application is the responsibility of the Architect/ Designer and Professional Engineer.

All products where demonstration of performance is required to satisfy the NZ Building Code is the responsibility of the product manufacturer or importer of the following items: Metalcraft take on no responsibility whatsoever

Please liaise with the following companies for information:

SEALANTS, WASHERS, AQUASEALS, AQUADAPT, RIVETS, FASTENERS, TOUCH UP PAINTS , LITTLE GRIPPERS.

Key Supplier:

Konnect Fastening Systems®

www.konnecfasteningsystems.co.nz**UNDERLAY**

Metalcraft Roofing can supply various underlays, please note

Key Suppliers include:

Thermakraft - www.thermakraft.co.nzDriSpace - www.drinspace.co.nzProClima - www.proclima.co.nz**ALUMINIUM**

Metalcraft Roofing's SIGMA-BATTEN™ is extruded by McKechnie® Aluminium Solutions Limited.

36 Paraite Road, Bell Block, New Plymouth, New Zealand

Metalcraft Roofing are members of the Roofing Association, New Zealand and the New Zealand Metal Roofing Manufacturers Incorporated.

Metalcraft Roofing branches have obtained Eco Choice certification.