

Metalcraft Kāhu® Metal Roof and Wall Cladding

Product Technical Statement: 111545



Kāhu® is a symmetrical, trapezoidal metal roof and wall cladding profile.

[View miproducts listing](#)



Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme



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

New Zealand Metal Roofing Manufacturers Association Inc (NZMRM)
[RCOP](#)

Technical Statement

Product Description

Metalcraft Roofing supplies Metalcraft Kahu® for use as a roofing, horizontally and vertically laid wall cladding.

Kahu® is a symmetrical, trapezoidal, long-run steel roof and wall cladding manufactured from NZ Steel products.

It is supplied in a range of protective coatings to meet NZ's exposure zones and are available in the full Colorsteel® range.

Kāhu® sheets are available in the following NZ Steel branded products:

- Colorsteel® Endura®
- Galvsteel®
- Colorsteel® Maxx®
- Zinalume®.

Metalcraft Kahu® sheets are available in the following sizes:

- Thickness (mm): 0.40 and 0.55
- Width (mm): Cover – 875, Sheet – 950

Scope of use

Metalcraft Roofing supply the Kahu® roofing and wall cladding system for use on commercial and residential buildings within the following scope:

When used for roofing:

- Kahu® may be used with a minimum roof gradient of 3 degrees

When used as a wall cladding:

- When installed vertically, Metalcraft Kahu® may be direct-fixed up to a risk score of 6 and above that on a drained and ventilated cavity, where the risk score calculation relies on the E2/AS1 risk matrix methodology.
- When installed horizontally, Metalcraft Kahu® must always be installed over a drained and ventilated cavity unless the building is unlined or the building has an importance level 1, in which case it may be direct-fixed.

New Zealand Building Code (NZBC)

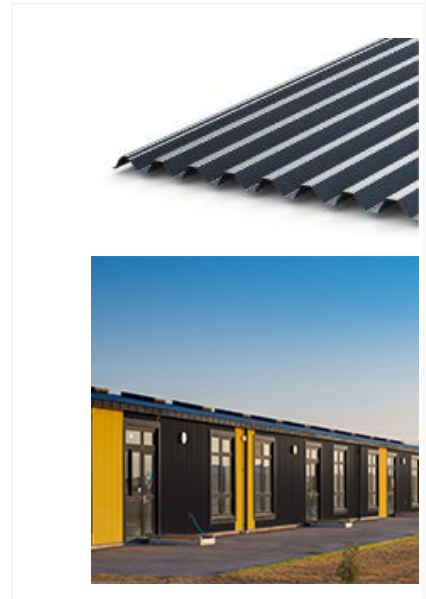
The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B1 Structure:** Performance B1.3.1, B1.3.2, B1.3.3, B1.3.3(a), B1.3.3(b), B1.3.3(c), B1.3.3(d), B1.3.3(g), B1.3.3(i)
- **Clause B2 Durability:** Performance B2.3.1, B2.3.1(b), B2.3.2, B2.3.2(b)
- **Clause C3 Fire affecting areas beyond the fire source:** Performance C3.4, C3.4(a), C3.7, C3.7(a)
- **Clause E2 External moisture:** Performance E2.3.1, E2.3.2, E2.3.7, E2.3.7(a), E2.3.7(b), E2.3.7(c)
- **Clause F2 Hazardous building materials:** Performance F2.3.1

Evidence

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

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masterspec partner

Company Contact Details



Company: Metalcraft Roofing Limited

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ACCEPTABLE SOLUTION B1/AS1 - AS/NZS 1397:2011, AS/NZS 1170:2002 (span tables)
ACCEPTABLE SOLUTION B2/AS1 - Coated in accordance with AS/NZS 2728:2013. (NZ Steel claim) cited in E2/AS1 ACCEPTABLE SOLUTION
C/AS2-C/AS7 Metals are non-combustible - ISO5660 BRANZ (FH 6102-TT, dated 3/1/2017) (Material Group 1-S), Steel non-combustible (refer para 5.8 C/AS2-C/AS7)
ACCEPTABLE SOLUTION E2/AS1 - NZMRM Code of Practice (v2.2)
ALTERNATIVE SOLUTION ColorCote safety data sheet - Coating system is inert once dry

Supporting Evidence

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



New Zealand Metal Roofing Manufacturers Association Inc (NZMRM)
[RCOP](#)

Use in Service History

Kāhu® Profile Static Testing (Uniformly Distributed Load) (AS 4040.2) information is available and past history of in-service use of metal long run roof and wall cladding within New Zealand.

Product Criteria

Design requirements

On new buildings designed and constructed to comply with the NZBC using timber or steel framing.

On existing buildings using timber and steel framing where the designer and installer have satisfied themselves that the building is suitable for the intended building work.

In conjunction with a vapor permeable building wrap that has a permeability of 36g/m²/day of a vapor resistance of no more than 500MNs/g.

Insulated buildings in conjunction with steel framing, a thermal break is required. Timber thermal breaks are recommended.

Contact with other materials must be in accordance with Table 21 (E2/AS1), or compatible with the The New Zealand Metal Roofing Manufacturers Association Inc (NZMRM) Code Of Practice Building height and design wind speed is limited by the Kāhu® design load span tables.

Sheet lengths of ≤40m must be installed on a roof with a minimum pitch of 3°

Sheet lengths of >40m but less than <60m must be installed on a roof with a minimum pitch of 4°

Installation requirements

For Kāhu® installation information please refer to Metalcraft Roofing for further information.

Materials in contact with Kāhu® must be compatible as specified in E2/AS1 Table 21.

Maintenance requirements

The product maintenance requirements for your Metalcraft Roofing product is issued by New Zealand Steel Limited.

It is important to carry out a regular schedule of maintenance in order to protect the appearance and prolong the durability of any Metalcraft Roofing product.

Maintenance information is available from Metalcraft Roofing or by visiting Colorsteel at www.colorsteel.co.nz/warranty

Warrantees

The product used and the location of the building determines the warranty period.

Warranty information is available from Metalcraft Roofing or by visiting Colorsteel at www.colorsteel.co.nz/warranty

Company Product Information

Environmental

In all climate zones as defined by NZS-3604:2011, subject to the limitations set out below:

Kāhu® may be used as a roof cladding system in exposure zones B, C & D as defined in Sec 4, NZS3604:2011.

For use in "Microclimatic considerations," (as defined in Sec 4.2.4) refer to Metalcraft Roofing.

Kāhu® may be used as a wall cladding system in exposure zones B & C.

Where Kāhu® is to be used in exposure Zone D, then only Colorsteel® Endura® or Colorsteel® Maxx® may be used.

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Relationships



Environmental Choice New Zealand



New Zealand Made



Date last validated: **12 May 2021**



Date last updated: **12 May 2021**

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