

METALCRAFT CORRUGATE

PURPOSE

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

EXPLANATION

Metalcraft Corrugate is a corrugated long-run wall and roof cladding manufactured from New Zealand (NZ) Steel product. Available in a range of protective coatings and the full range of Colorsteel® colours to withstand NZ's exposure zones.

Metalcraft Corrugate is available in the following NZ Steel branded products:

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

Sheets are available in the following sizes:

- Thickness (mm): 0.40, 0.55
- Width (mm): Cover – 760, Sheet – 851.



Figure 1: Profile Dimension (nominal)



SCOPE AND LIMITATIONS OF USE

Scope	Limitations
Location In all wind zones as defined in NZS 3604:2011 and in all calculated design loads.	<ul style="list-style-type: none"> ➤ Metalcraft Corrugate load spans apply in wind zones up to and including extra high. ➤ Where the calculated design loads exceed 2.5kPa the engineer must satisfy themselves that the product, pitch and fixings will meet the conditions.
In all exposure zones as defined by NZS 3604:2011.	<ul style="list-style-type: none"> ➤ In exposure Zone D only Colorsteel® Endura® or Colorsteel® Maxx® may be used. ➤ For use in "Microclimatic considerations," (as defined in Sec 4.2.4) refer to Metalcraft Roofing.
On buildings located any proximity to a relevant boundary.	<ul style="list-style-type: none"> ➤ Metalcraft Corrugate is non-combustible.
Building On timber or steel structural framing.	<ul style="list-style-type: none"> ➤ Where Metalcraft Corrugate is used in an insulated building and in conjunction with steel framing, a thermal break is required.
In conjunction with a primary structure that complies with the NZ Building Code or where the designer has established that the existing structure is suitable for the intended building work.	<ul style="list-style-type: none"> ➤ Building height is limited by the Metalcraft Corrugate design load span tables (refer to: www.metalcraftgroup.co.nz) or specific engineering, where applicable..
As a wall cladding.	<ul style="list-style-type: none"> ➤ When installed vertically, Metalcraft Corrugate may be direct-fixed up to a risk score of 20, where the risk score calculation relies on the E2/AS1 risk matrix methodology. ➤ When installed horizontally, Metalcraft Corrugate must always be installed over a drained and ventilated cavity unless the building is unlined or a building, importance level 1, in which case it may be direct-fixed. ➤ Flashings, flexible and rigid building underlays and Metalcraft Corrugate fixings must be in accordance with E2/AS1 and NZMRM Code of Practice (V3.0). ➤ Contact with other materials must be in accordance with E2/AS1 and NZMRM Code of Practice (V3.0).
As a roof cladding	<ul style="list-style-type: none"> ➤ Metalcraft Corrugate lengths ≤40m must be installed on a roof with a minimum pitch of 8°. ➤ Metalcraft Corrugate lengths >40m but less than <60m must be installed on a roof with a minimum pitch of 9°. ➤ A potable water collection system may be installed. ➤ Flashings, flexible and rigid building underlays and Metalcraft Corrugate fixings must be in accordance with E2/AS1 and NZMRM Code of Practice (V3.0). ➤ Contact with other materials must be in accordance with E2/AS1 and NZMRM Code of Practice (V3.0).

PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Metalcraft Roofing requirements, Metalcraft Corrugate will comply with or contribute to compliance with the following performance claims:

NZ Building Code clauses	BASIS OF COMPLIANCE	
	Compliance statement ¹	Demonstrated by
B1 Structure B1.3.1, B1.3.2, B1.3.3 (a, b, c, d, g, i)	ACCEPTABLE SOLUTION B1/AS1	<ul style="list-style-type: none"> ➤ AS/NZS 1397:2011. ➤ AS/NZS 1170:2002. (for span tables).
B2 Durability B2.3.1 (b) B2.3.2 (b)	ACCEPTABLE SOLUTION B2/AS1	<ul style="list-style-type: none"> ➤ Coated in accordance with AS/NZS 2728:2013 (cited in E2/AS1).
C3 Fire Affecting Areas Beyond the Fire Source C3.4 (a), C3.7 (a)	ACCEPTABLE SOLUTION C/AS1 C/AS2 1st edition, June 2019.	<ul style="list-style-type: none"> ➤ Steel is non-combustible. ➤ BRANZ (FH 6102-TT, dated 3/1/2017) (Material Group 1-S). ➤ BRANZ is accredited to perform ISO.5660 test.
E2 External Moisture E2.3.1, E2.3.2, E2.3.7 (a, b, c)	ACCEPTABLE SOLUTION E2/AS1	<ul style="list-style-type: none"> ➤ NZMRM Code of Practice (V3.0).
F2 Hazardous Building Materials F2.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> ➤ Coating systems are inert once dry. ➤ Colorsteel® safety data sheets.

1. The Compliance Statement is the pass holder's statement that they have met their obligations under s14G(2) of the Building Act 2004.

Other performance statement	BASIS OF STATEMENT	
	Performance statement	Demonstrated by
Metalcraft Corrugate will not contaminate potable water.	AS/NZS 4020:2005	<ul style="list-style-type: none"> ➤ Claimed by manufacturer: NZ Steel. ➤ BRANZ statement of metal roof suitability, refer to www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater/.

NZ STEEL ASSURANCE

As the manufacturer of the steel, from which Metalcraft Corrugate is fabricated, NZ Steel provides assurance that the steel:

- has been manufactured in accordance with AS 1397:2001
- is coated in accordance with AS/NZS 2728:2013 or galvanized in accordance with AS/NZS 2312.2:2014.

NZ Steel has established an Environmental Management System certified to ISO 14001.

For more information on the specific exposure zones and environmental impacts of the product refer to www.colorsteel.co.nz

SOURCES OF INFORMATION

- AS/NZS 1170:2002. *Structural design actions*.
- AS/NZS 1397:2001. *Steel sheet and strip—Hot-dip zinc coated or aluminium/zinc-coated*.
- AS/NZS 2728:2013. *Prefinished/pre-painted sheet metal products for interior and exterior building applications*.
- BRANZ www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater/.
- NZ Metal Roof Manufacturers Inc., (NZMRM): *Code of Practice (V3.0)*.
- NZ Steel. Technical Bulletin 2. [August 2016]. *Fire testing. Fire Testing of Coated Steel Products*.

VERSION: **DATE:**

Note: Uncontrolled in printed format.

NAME: Frances Charles

POSITION: National Sales & Marketing Mgr

Signed on behalf of Metalcraft Roofing:

By signing this pass™ the signatory confirms that, in respect of the subject of this pass™, the company has met their s14G obligations under the Building Act 2004.

For more information visit www.metalcraftgroup.co.nz