

METDEK 500

METDEK 500 EXPLAINED

Metdek 500 explained

The Metdek 500 Roofing and External Wall Cladding system comprises:

- › A long run steel sheet with a 48mm deep trough profile
- › Associated design and installation information

Metalcraft fabricates the Metdek 500 sheets from steel manufactured by New Zealand Steel. This steel is supplied with different protective coatings which are designed to withstand conditions in specific New Zealand Corrosion Zones. Refer to NZ Steel's Environmental Categories Brochure at www.nzsteel.co.nz/technical-resources for details.

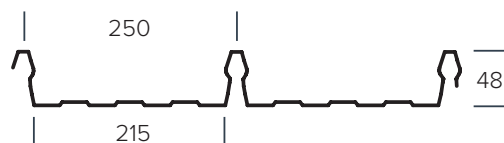
Metdek 500 is available in the following NZ Steel branded products:

- › Colorsteel® Endura®
- › Galvsteel®
- › Colorsteel® Maxx®
- › Zinalume®

In the following sizes:

- › Thicknesses: 0.4mm, 0.48 and 0.55mm
- › Width: Cover = 500mm Sheet = 515mm

And with the profile dimensions below.



PURPOSE

Metalcraft Roofing supply the Metdek 500 system as an external wall cladding and on roofs with a defined pitch of a minimum of 3 degrees.

SCOPE OF USE

Metalcraft Roofing supply the Metdek 500 Roofing and External Wall Cladding system for use within the following scope:

LOCATION:

- › In wind zones:
 - › Up to and including Extra High as defined by NZS-3604:2011.
 - › Subject to specific engineering, if the engineer has satisfied themselves that the product, pitch and fixings will meet the conditions.
- › In all climate zones as defined by NZS-3604:2011, subject to the limitations set out below (see limitations overleaf).
- › On buildings located within 1m of the relevant boundary, in respect of fire spread only.

BUILDING:

- › On new buildings that have been designed and constructed to comply with the NZ Building Code (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 vapour permeable building wrap that has a permeability of 36g/m²/day of a vapour resistance of no more than 500MN/g.
- › In conjunction with a potable water collection system.



VERSION:

NOTE: Uncontrolled in printed format.

DATE:

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.

FURTHER INFORMATION

For further product assistance please contact:

www.metalcraftgroup.co.nz

To find your nearest Metalcraft Roofing branch visit www.metalcraft.co.nz

LIMITATIONS OF USE

LOCATION:

- Metdek 500 may be used as a roof cladding system in exposure zones B, C & D. For use in "Microclimatic considerations," (as defined in Sec 4.2.4) refer to Metalcraft Roofing.
- Metdek 500 may be used as a wall cladding system in exposure zones B & C. Where Metdek 500 is to be used as a wall cladding in exposure Zone D, then only Colorsteel® Endura® or Colorsteel® Maxx® may be used.

BUILDING:

- Where Metdek 500 is used in an insulated building in conjunction with steel framing, a thermal break is required. This will depend on the location of the insulation layer. 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 Metdek 500 design load span tables (refer to: www.metalcraftgroup.co.nz).
- Where it is used as a roof cladding, Metdek 500 sheet lengths of ≤ 40m must be installed on a roof with a minimum pitch of 3°. Metdek 500 sheet lengths of > 40m but ≤ 60m must be installed on a roof with a minimum pitch of 4°.
- Metdek 500 can be used in conjunction with a potable water collection system.
- When used as a wall cladding, Metdek 500 must be installed in conjunction with a drained cavity.

PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Metalcraft Roofing requirements, the Metdek 500 Roofing and External Cladding system will comply with or contribute to compliance with the following provisions of the New Zealand Building Code:

Basis of compliance		
NZBC Clause	Means of compliance	Relevance
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 (span tables)
B2 Durability B2.3.1 (b)	ACCEPTABLE SOLUTION B2/AS1	<ul style="list-style-type: none"> Coated in accordance with AS/NZS 2728:2013. (NZ Steel claim) cited in E2/AS1
C3 Fire Affecting Areas Beyond the Fire Source C3.4(a), C3.5, C3.7 (a)	ACCEPTABLE SOLUTION C/AS2-C/AS7 Metals are non-combustible	<ul style="list-style-type: none"> ISO5660 BRANZ (FH 6102-TT, dated 3/1/2017) (Material Group 1-S) Steel non-combustible (refer para 5.8 C/AS2-C/AS7)
E2 External Moisture E2.3.1, E2.3.2, E2.3.7 (a-c)	ACCEPTABLE SOLUTION E2/AS1	<ul style="list-style-type: none"> NZMRM Code of Practice (v2.2)
F2 Hazardous Building Materials F2.3.1	ALTERNATIVE SOLUTION ColorCote safety data sheet	<ul style="list-style-type: none"> Coating system is inert once dry

Basis of compliance		
Other performance claims	Means of compliance	Relevance
Metdek 500 Roofing and External Cladding system will not contaminate potable water	AS/NZS 4020:2005	<ul style="list-style-type: none"> Claimed by manufacturer: NZ Steel BRANZ statement that metal roof suitable refer: http://www.level.org.nz/water/watersupply/mains-or-rainwater/harvesting-rainwater/

USEFUL INFORMATION

Refer to www.metalcraftgroup.co.nz for information relating to:

- Technical information, drawings and specification.
- Specification of the correct fasteners.
- Care and maintenance.
- The Metalcraft Roofing warranty.

NZ STEEL ASSURANCE

As the manufacturer of the steel from which Metdek 500 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.

SOURCES OF INFORMATION:

- MBIE Acceptable Solutions
- AS/NZS-1397:2001 "Steel sheet and strip—Hot-dip zinc-coated or aluminium/zinc-coated"
- NZ Metal Roof and Wall Cladding Code of Practice (NZMRM) (V2.2)
- AS/NZS-1170:2004 "Structural design actions"
- AS/ NZS-2728:2013 "Prefinished/pre-painted sheet metal products for interior and exterior building applications"

CONTACT INFORMATION

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