

PURPOSE

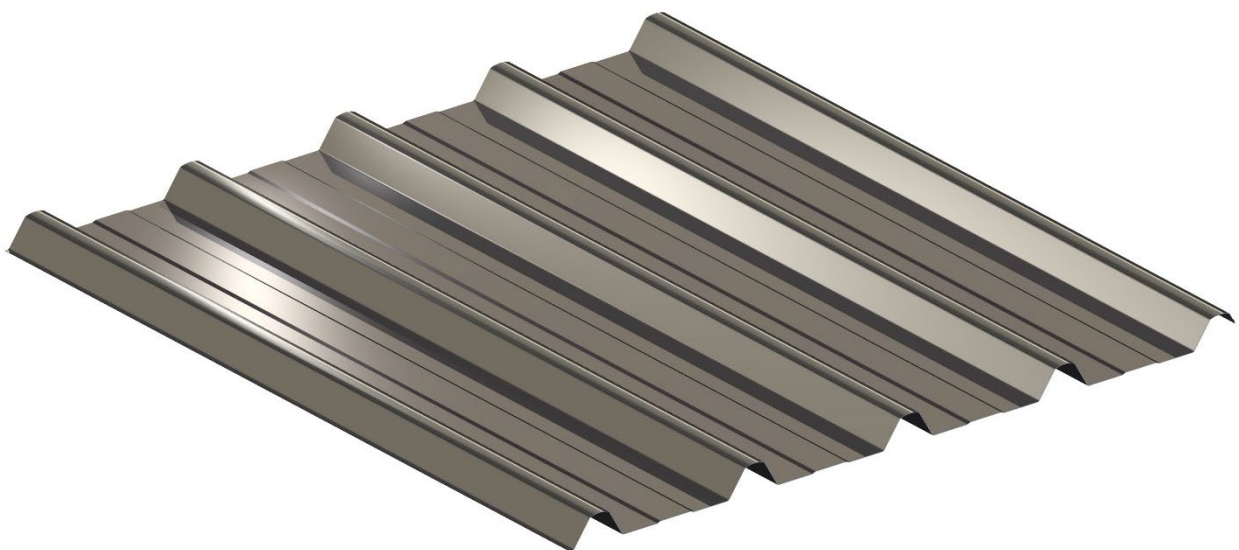
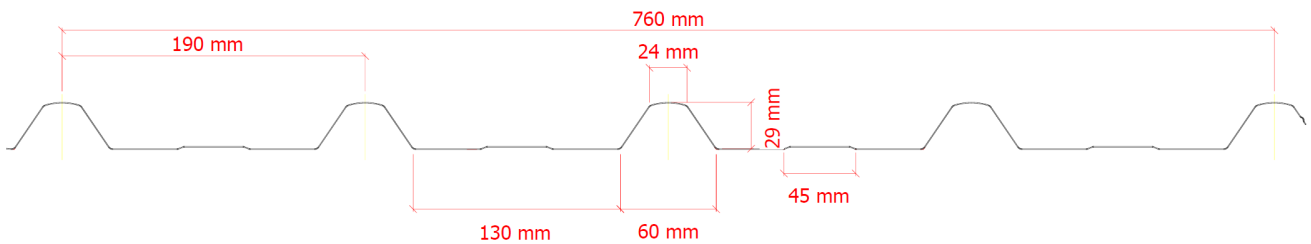
Quin Roofing Ltd supplies ZinaCore™ & MagnaFlow™ QD5 Long Run metal sheets (ZinaCore™ & MagnaFlow™ QD5) for use as a cladding on external walls and pitched roofs.

EXPLANATION

ZinaCore™ & MagnaFlow™ QD5 is a profiled metal sheet cladding:

- ZinaCore™ comprises a steel substrate (0.4 or 0.55 gauge) protected with a hot-dipped aluminium/zinc coating and a flexible exterior acrylic, polyester, modified polyester or a 70% PVDF finishing coat.. It weights 150gms/m².
- MagnaFlow™ is a steel substrate (0.4 or 0.55 gauge) protected with a hot-dipped coating that includes magnesium with the aluminium/zinc. It is also finish coated with a flexible exterior acrylic, polyester, modified polyester or a 70% PVDF finishing coat.

PROFILE



MAXIMUM SPAN

Maximum spans for normal and heavy traffic in millimetres based on point load limits, distributed loads in kPa calculated in accordance with AS/NZS 1170:2003 at maximum spans, using 4 fasteners per sheet per support. Load for alternative fastener frequencies available on request.

	Material Thickness	Internal Span			End Span		
		Span	Strength Load	Serviceability Load	Span	Strength Load	Serviceability Load
Controlled Traffic*	0.40mm	1600	4.37	1.82	1300	5.58	2.37
	0.55mm	2400	4.41	1.75	1900	4.77	1.91
Heavy Traffic**	0.40mm	1100	7.16	3.08	800	8.15	3.94
	0.55mm	1800	6.08	3.31	1400	6.75	3.28

*Supports 1.1kN to PAN at mid-span. **Supports 1.1kN to RIB at mid-span.

FASTENERS PER SHEET PER PURLIN

Material Thickness	Purlin Spacing	Wind Zone				
		Low 32 m/s	Medium 37 m/s	High 44 m/s	Very High 50 m/s	Extra High 55 m/s
0.40mm	900	2	2	2	3	4
0.55mm		2	2	2	2	2
0.40mm	1200	2	2	3	4	4
0.55mm		2	2	2	2	2

Fastener requirements for wind zones according to NZS3604:2011 (calculated on periphery area pressures), using standard fasteners without load spreading washers (typically fastened through every rib top and bottom purlin).

SCOPE OF USE AND LIMITATIONS

LOCATION

Scope	Limitation
In all wind zones up to and including extra high as defined in NZS 3604:2011 or calculated design wind pressure (ULS).	<ul style="list-style-type: none">• Spans and fixings in accordance with NZMRM Code of Practice Span tables• Where the pressure or product falls outside the scope of the span tables, specification is subject to specific design.
In all exposure zones defined by NZS 3604:2011.	<ul style="list-style-type: none">• In exposure Zone D only MagnaFlow™ may be used.• Where microclimatic considerations apply(as defined in Section 4.2.4) contact Quin Buildings Direct for technical advice.
On buildings any proximity to a relevant boundary.	

BUILDING

Scope	Limitation
On timber or steel structural framing.	<ul style="list-style-type: none">• Contact with other materials must be in accordance with E2/AS1 and NZMRM Code of Practice.
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">• Spans and fixings to be in accordance with NZMRM Code of Practice Span tables• Where the wind pressure or product falls outside the scope of the span tables, specification is subject to specific design.
As a roof cladding	<ul style="list-style-type: none">• A minimum roof pitch of 3° is required.• A potable water collection system may be installed.• Flashings, flexible and rigid building underlays and fixings must be in accordance with E2/AS1 and NZMRM Code of Practice.• Contact with other materials must be in accordance with E2/AS1 and NZMRM Code of Practice.
As a wall cladding, installed horizontally or vertically.	<ul style="list-style-type: none">• Orientation (Vertical only) and whether direct fixed or installed over a cavity must be in accordance with Table 3, E2/AS1.• Flashings, flexible and rigid building underlays and fixings must be in accordance with E2/AS1 and NZMRM Code of Practice

CONDITIONS OF USE

Must be installed in accordance with E2/AS1 and the NZMRM Code of Practice.

PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Quin Roofing Ltd requirements, ZinaCore™ & MagnaFlow™ QD5 will comply with or contribute to compliance with the following performance claims:

NZ BUILDING CODE CLAUSES

	Basis of compliance	
	Compliance statement	Demonstrated by
B1 Structure B1.3.1 B1.3.2 B1.3.3 (a, b, c, d, g, i)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> E2/AS1 AND NZMRM Code of Practice include metal cladding for roof and external cladding. This implies that ZinaCore™ & MagnaFlow™ QD5 to this standard will have the necessary structural integrity for those uses.
B2 Durability B2.3.1 (b) B2.3.2 (b)	ACCEPTABLE SOLUTION B2/AS1	<ul style="list-style-type: none"> Finish coated in accordance with AS/NZS 2728:2013 (cited in E2/AS1). Coating of the steel core is to AS/NZS 1397:2011
C3 Fire Affecting Areas Beyond the Source C3.4 (a) C3.7 (a)	ACCEPTABLE SOLUTION C/AS2 – C/AS6	<ul style="list-style-type: none"> Steel non-combustible (refer para 5.8 C/AS2-C/AS6). Tested by CSIRO to ISO 5660.1:2002, Material Group number 1-S. CSIRO is registered by NATA to perform the ISO tests.
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.
F2 Hazardous Building Materials F2.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> Coating system is inert once dry.

OTHER PERFORMANCE STATEMENTS

	Basis of statement	
	Performance statement	Demonstrated by
QD5 Long Run will not contaminate potable water.	AS/NZS 4020:2005	<ul style="list-style-type: none"> BRANZ statement refer: http://www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater/

USEFUL INFORMATION

For information on the design, installation and maintenance of ZinaCore™ & MagnaFlow™ QD5 and for our warranty refer to quinbuildings.co.nz.

SOURCES OF INFORMATION

- 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 <http://www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater/>
- NZ Metal Roof Manufacturer's (NZMRM): *Code of Practice (V3.0)*
- ColorCote Technical Bulletin Number 3 *Fire Rating Compliance of ColorCote Products.*