

PURPOSE

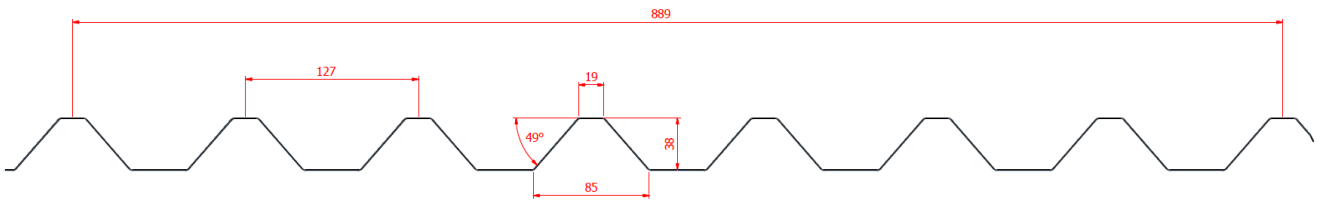
Quin Roofing Ltd supplies ZinaCore™ & MagnaFlow™ QD7 Long Run metal sheets (ZinaCore™ & MagnaFlow™ QD7) for use as a cladding on external walls and pitched roofs.

EXPLANATION

ZinaCore™ & MagnaFlow™ QD7 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.

Maximum Spans – Controlled Traffic*			Serviceability Load	
Gauge	Internal	End	14g Tek	Profiled Washer
0.40mm	1900	1300	1.2 kPa	1.55 kPa
0.55mm	2950	1950	1.1 kPa	1.95 kPa

Maximum Spans – Heavy Traffic**			Serviceability Load	
Gauge	Internal	End	14g Tek	Profiled Washer
0.40mm	1200	1000	1.55 kPa	2.00 kPa
0.55mm	2000	1400	2.20 kPa	2.60 kPa

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

FASTENERS PER SHEET PER PURLIN

Fasteners for Controlled Traffic					
Material Thickness	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	4	4	4*	N/A	N/A
0.55mm	4	4	4*	N/A	N/A

Fasteners for Heavy Traffic					
Material Thickness	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	4	4	4	4*	N/A
0.55mm	4	4	4	4	4

*Fasteners require Profiled Washer, N/A suitability to be confirmed by manufacturer

Sheet lengths greater than 8m will require profiled washers in all instances.

Fastener requirements for wind zones according to NZS3604:2011 (calculated on periphery area pressures, typically fastened through every rib top and bottom purlin).

As a guide for no-specific design the following S.L.S design loads in accordance with the MRM Roofing Code of Practice can be used for buildings less than 10m high, Otherwise AS/NZS 1170.2 should be used.

Low wind zone = 0.68kPa, Medium wind zone = 0.93kPa, High wind zone = 1.32kPa, Very high wind zone = 1.72kPa and Extra high wind zone = 2.09kPa

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 • 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 • 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™ QD7 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™ QD7 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
QD7 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™ QD7 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.*