



^All dimensions given are nominal and vary dependent on the chosen materials gauge and tensile

DESCRIPTION

Steelformers DB7 is a proprietary metal trapezoidal roofing and wall cladding system manufactured by long-run roll forming processes and installed with screw fasteners to supports. It can be formed from a variety of substrates to meet durability, formability and aesthetic requirements. This BPIS includes the profile, along with associated fasteners and flashings supplied by the manufacturer.

SCOPE OF USE

Generally used for roofing and wall cladding, mansards, ceilings, fences and decorative screens, or any other cladding application.

LIMITATIONS

There are limitations on the use of the product and compatibility with other building materials. Incompatible products in contact with or run-off from, may cause premature failure and not reach the required performance. Refer to E2/AS1 Tables 21 and 22.

There are location limitations for the coated steel products. Refer to the coated metal product manufacturers for location limitations and maintenance requirements.

The minimum pitch allowance for Steelformers DB7 is 3°.

DESIGN

Design information is available from the NZMRM Code of Practice, at www.metalroofing.org.nz/cop. The Acceptable Solutions E2/AS1 and E2/AS4 also have design solutions for some residential building categories.

MATERIALS

1. Metallic coated grade G300/G550 steel complying with AS 1397 type AZ 150 coating
 2. Prepainted grade G300/G550 steel complying with AS 1397 coated in accordance to AS/NZS 2728 to Type 4 (Colorcote® Zinacore™) or Type 6 (Colorcote® MagnaFlow™) and Colorsteel Maxam®
 3. Unpainted or Prepainted H34/H36 aluminium (Colorsteel Altimate®/Colorcote® Alumiguard™)
- Fasteners. 12 g screws coated to NZMRM Fastener Standard Class 5

INSTALLATION

Installation should be carried out by a suitably qualified practitioner in accordance with manufacturer’s recommendations, the NZMRM Code of Practice, RANZ Metal Roofing and Wall Cladding Guide and for Residential housing E2/AS1 and E2/AS4.

Installers should take appropriate safety measures when working at height. For new residential construction, a Licensed Building Practitioner is required for the installation.

MAINTENANCE

Maintenance must be carried out in accordance with the manufacturer’s recommendations.

New Zealand Steel: Refer to the “Residential Warranty, Environmental Categories, & Product Maintenance” brochure. Available for download at www.colorsteel.co.nz

Pacific Coil Coaters: Refer to the “Minimum Maintenance Schedule” brochure. Available from www.colorcote.co.nz

Unwashed areas must be regularly maintained to avoid the build-up of salt and debris.

COMPLIANCE WITH THE NEW ZEALAND BUILDING CODE (NZBC)

Steelformers DB7 and associated flashings made from equivalent material, used in combination with fasteners, underlays and clear sheeting accredited by NZMRM as complying to their product performance standards, will contribute to meeting the following performance requirements of the NZBC:

NZBC B1 Structure

Load/span testing and analysis in accordance with procedures described in Metal Roofing and Wall Cladding Code of Practice have led to the development of the following load span tables/charts.

Maximum spans for NZS3604 Wind Zones						
BMT	Tensile Strength	Wind Zone	Roofing		Wall Cladding	
			End	Internal	End	Internal
0.40mm	G550	Low/Medium	1950	2900	1750	2500
		High	1650	2500	1450	2100
		Very High	1450	2150	1250	1800
		Extra High	1300	1900	1050	1500
0.55mm	G550	Low/Medium	2200	3300	2500	3600
		High	1850	2800	1950	2800
		Very High	1600	2400	1650	2350
		Extra High	1400	2100	1300	1900

Fastener requirements in accordance with NZS3604:2011, using 12g screws coated to NZMRM Fastener Standard Class 5.

	Roofing - rib fixed			Wall cladding - pan fixed	
	Steel based	Alu. based		Steel based	Alu. based
Timber	14x75 Timbertite® <i>*0.40mm gauge must be fixed with profile washer and EPDM seal</i>	14x75 stainless steel Timbertite® with profile washer and EPDM seal	Non-cavity	12x25 Timbertite®	12x25 Stainless Steel Timbertite®
			Cavity	Fixing must have min. penetration of 3x threads + height of rib. DB7 = 14x75 Timbertite®	Fixing must have min. penetration of 3x threads + height of rib. DB7 = 14x75 Stainless Steel Timbertite®
Steel up to 4.5mm	14x75 Steeltite® <i>*0.40mm gauge must be fixed with profile washer and EPDM seal</i>	14x75 Stainless Steel Steeltite® with profile washer and EPDM seal	Non-cavity	12x25 Steeltite®	12x25 Stainless Steel Steeltite®
			Cavity	Fixing must have min. penetration of 3x threads + height of rib. DB7 = 14x75 Steeltite®	Fixing must have min. penetration of 3x threads + height of rib. DB7 = 14x75 Stainless Steel Steeltite®

For buildings designed to AS/NZS 1170, refer to manufacturer.

NZBC B2 Durability

Sea Spray Exposure B (Low), C (Medium), D (High), E (Severe Marine)

Durability in accordance with Table 20 E2/AS1		
Product	Rain washed roofs	Walls and unwashed areas
Colorsteel Maxam® / Colorcote® ZinaCore™	B, C, D	B, C
Colorsteel Maxam® / Colorcote® Magnaflow™	B, C, D, E	B, C, D
Colorsteel Altimate® / Colorcote® Alumigard™	B, C, D, E	B, C, D, E

NZBC C Fire

Colorsteel Maxam®, Colorcote® ZinaCore™ and Colorcote® Magnaflow™ are rated as a Group 1-S material when tested in accordance with ISO 5660:2002 Part 2.

NZBC E1 Surface Water

Capacity Calculation in accordance with Metal Roofing and Wall Cladding Code of Practice calculators.

Minimum pitch 3°, rainfall intensity 150mm/hr		
Maximum Run	122m	
Catchment area of spreader	61.11m ²	20m run, 4 holes in spreader
Catchment behind penetration	30.55m ²	20m run, discharging each side of penetration

NZBC E2 External Moisture

Flashing details should be in accordance with Steelform Roofing Group design details, Metal Roofing and Wall Cladding Code of Practice, E2/AS1, or E2/AS4. Alternative details complying with the “4 D’s” (Deflection, Draining, Drying and Durability) will also comply with the performance requirements of NZBC.

NZBC E3 Internal Moisture

When used with an absorbent, permeable underlay complying with NZS 2295:2006, or Dridex® pre-adhered fleece, Steelformers DB7 will contribute to compliance with NZBC E3.3.1. Ceiling spaces of sarked roofs, skillion roofs, barrel curved roofs, flat roofs and roofs over moisture laden environments must have provision for adequate ventilation.

NZBC F2 Hazardous Building Materials

Steelformers DB7 manufactured from metallic coated, prepainted metallic coated or pre-painted aluminium will meet the performance requirements of F2, 2.3.1.

NZBC G12 Water Supplies

Colorsteel and Colorcote® tested in accordance with AS/NZS 4020:2005 passed the requirements for products in contact with drinking water.

Product ban

Steelformers DB7 roofing and wall cladding products are not subject to any warnings or bans under the Building Act 2004.