DESIGN SHEETMETAL

DESIGNER PANEL SYSTEMS

DIVERSACLAD



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DIVERSACLAD®



Diversaclad® walling is a concealed fix profile recognised by its shadow-line express joint. Diversaclad® can be installed horizontally, vertically or diagonally to create an ultra-modern and streamlined aesthetic. Panel width and express joints can be customised, giving flexibility on complex designs.

DIVERSACLAD **FEATURES**

Our Diversaclad® delivers a sleek, contemporary finish with the strength and versatility of steel. Designed for precision, durability and visual impact, it's a standout solution for modern architectural projects.



RIB HEIGHT (H) mm	COVER WIDTH (C) mm	MASS COLORBOND® kg/m2	BMT mm	STEEL BASE MPa	MIN. PITCH °
25	200	6.65	0.55	G300	-
	300	5.93			

DIVERSACLAD **FASTENERS**

Diversaclad® is fastener fixed through the female tab.

TIMBER SUPPORTS & 19mm STRUCTURAL PLYWOOD

#10 x 25mm Hex or Wafer Head Type 17 Fastener

STEEL SUPPORTS TO METAL BATTENS 0.55mm - 1.0mm

#10 x 16mm Hex or Wafer Head Self Drilling Fastener

Designer head screws can be substituted where preferred.

DIVERSACLAD® **MATERIALS**

COLORBOND® steel | COLORBOND® ultra | COLORBOND® matt

Copper, Aluminium and other materials may be available, check with your Design Sheetmetal representative today.

DIVERSACLAD **LIMIT STATE CAPACITY TABLE**

Tables must be used in conjunction with Design Notes.

PROFILE	LIMIT STATE	SPAN TYPE	PRESSURE FOR SPAN (kPa)			
			450mm	600mm	900mm	1200mm
25mm Rib Cover up to 300mm	SERVICEABILITY	INTERNAL	5.99	6.12	5.91	4.31
		END	3.14	3.21	3.10	2.26
	STRENGTH	INTERNAL	4.50	4.12	2.90	2.37
		END	3.89	3.56	2.51	2.05

DESIGN NOTES

- Diversaclad® is suitable for walls only
- Metal supports are produced from minimum 0.55mm high tensile steel
- For most economic results use longer internal spans than end spans (in a ratio of 10:8)
- Equal span systems must be designed using end span values

DIVERSACLAD **SPAN CHART**

Tables must be used in conjunction with Design Notes.

PROFILE	SPAN TYPE	WIND CATEGORY	INTERNAL SPAN mm	END SPAN mm
25mm Rib Cover up to 300mm	WALLS	N1	1200	1050
		N2	1200	1000
		N3	1200	950
		N4	850	650
		N5	450	

DESIGN NOTES

- Spans shown reflect the minimum value of the Serviceability, Strength and Foot Traffic values of the Limit State Capacity table
- Wind category is based on AS 4055 and results include an allowance for local pressure factors
- Table based on 0.55mm High-Tensile steel battens or 19mm structural plywood
- For most economic results use longer internal spans than end spans (in a ratio of 10:8)
- Equal span systems must be designed using end span values

DIVERSACLAD **OVERHANGS**

The overhangs on Diversaclad® are limited to the values in the table. Overhangs have a minimum length of 50mm. Stiffened overhangs incorporate an angle attached to the sheet end.

PROFILE	PLAIN	STIFFENED
WALLING	200mm	400mm

NOTE

- Plain overhangs are limited to 20% of the adjacent end span
- Stiffened overhangs are limited to 33% of the adjacent end span



FOOT TRAFFIC

Diversaclad® is intended for walls only and should not be used for roofing.

PANEL LENGTH

Minimum Panel Length: 800mm

Recommended Maximum Panel Length: 8000mm

Lengths greater than 8000mm may be available.
Please enquire with your Design Sheetmetal sales representative today.
Transport length restrictions may apply.
Lengths greater than 8000mm require additional care to reduce the possibility of oil canning.

CUSTOM SIZES

Diversaclad® can be produced to almost any width from 180mm to approximately 500mm. Additional care is required as wider trays become more susceptible to oil canning. Enquire with your Design Sheetmetal Sales representative for minimum order quantities and technical information.

MANUFACTURING TOLERANCES

Consideration should be given to the following manufacturing tolerances:

Length: +0mm, -15mm

Width: ± 4mm

THERMAL EXPANSION

Change in temperature will cause all metals to expand and contract.
There is minimal effect with steel roofing and walling, however care must be taken when long sheet runs are used and high temperature variations occur.
Design Sheetmetal recommends the following maximum runs:

Recommended max. runs:

DARK COLOURS up to 17m. LIGHT COLOURS up to 24m.

OIL CANNING

Oil canning appears as waviness or rippling in the flat areas of metal panels. It is a characteristic of light gauge cold rolled metal roofing and cladding products. It can occur on all types of metal sheeting and is not considered a defect. Oil canning is a cosmetic issue and does not affect the structural integrity of the product. Oil canning may occur due to installation methods, thermal expansion and contraction and material colour. To minimise the risk of oil canning, when handling the product avoid twisting or bending the sheets.
For more information please refer to the Oil Canning Data Sheet on our website.

FLAMMABILITY

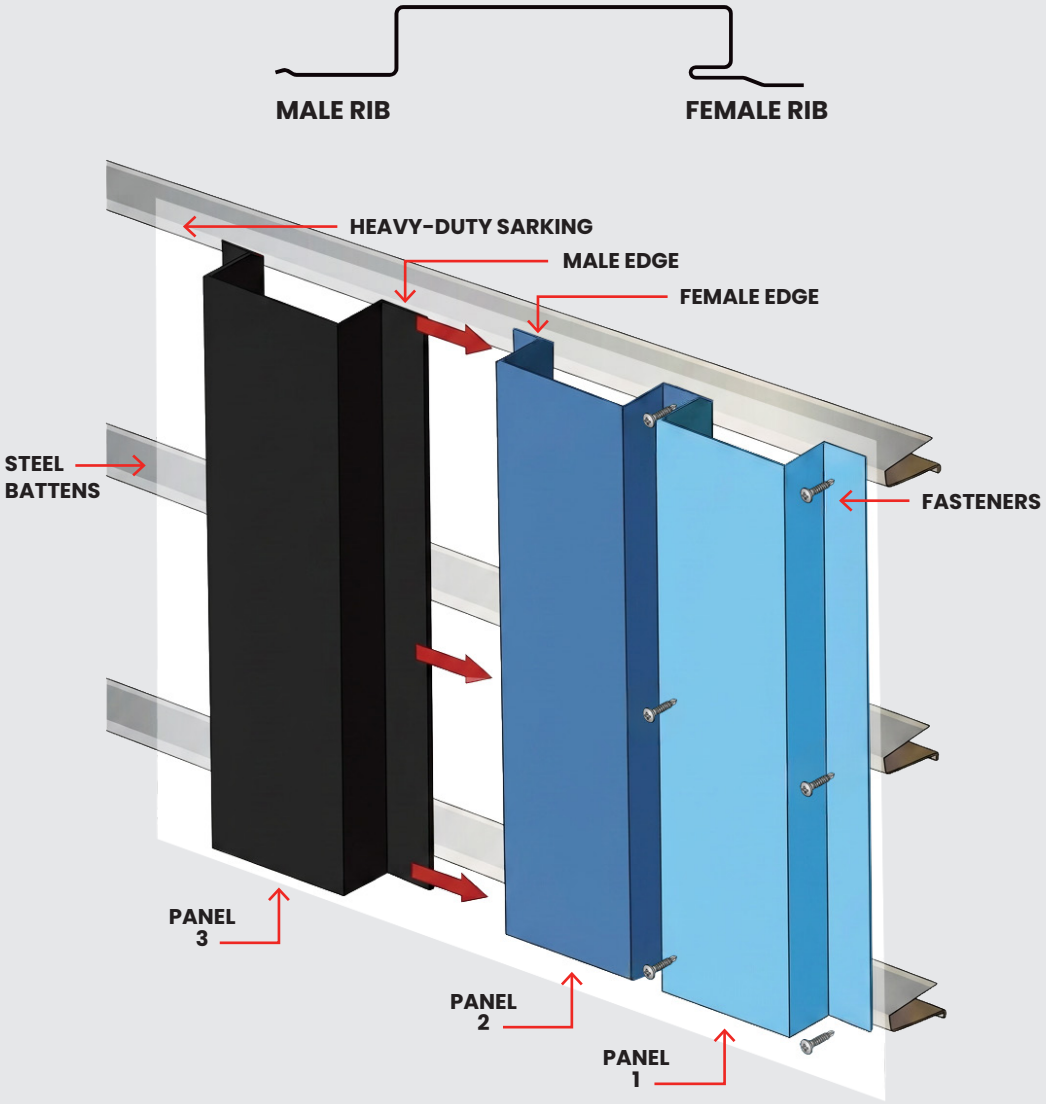
BlueScope materials used in the production of Diversaclad® have been tested in accordance with AS 1530.3, Spread of Flame Index is 0. This is considered non-combustible by the NCC.

CARE, HANDLING & STORAGE

Care should be taken at all times when handling sheets to preserve the quality of the finish. Keep sheets dry, stored clear of the ground and protected from rain and moisture. Any sheets which become wet should be separated, wiped and placed in the open air to dry. To minimise the risk of oil canning, when handling the product avoid twisting or bending the sheets.

DIVERSACLAD® **INSTALLATION**

Design Sheetmetal recommends the use of heavy-duty sarking behind the sheeting for condensation control and to ensure weather tightness.



FIXING TO STEEL BATTENS

NON-CYCLONIC



STEP 1: Position the first panel in the desired location. Secure with fasteners through the leading edge (male edge) of the panel.

STEP 2: Position the second panel so the leading edge (male edge) slides into place inside the trailing edge (female edge) of the first.

IMPORTANT: Fix into place with fasteners ensuring the fastener penetrates both panels.

STEP 3: Continue to install the following panels. Check every 4th or 5th panel for fanning or cover variation.

STEP 4: Complete installation fixing fasteners through the trailing edge of the final panel.

DESIGN SHEETMETAL

WHAT WE DO

At Design Sheetmetal Australia, we specialise in the manufacture of premium architectural roof and wall cladding systems. Focused entirely on sheet metal, we create tailored façade solutions that are lightweight, high-performing, and built to meet the demands of modern design.

Operating from our Bayswater and Laverton facilities, we support projects across both metro and regional areas, as well as interstate. We utilise a combination of locally produced materials, Australian-supplied products, and select international sources to ensure consistent quality and flexibility across every project.

While we focus purely on manufacturing, we work alongside a trusted network of skilled trades and roof plumbing professionals. This ensures every system is installed correctly, meets industry standards, and aligns with the requirements of the Building Code of Australia (BCA), while also keeping projects commercially competitive.

Backed by a team of experienced fabricators, operators, and technical specialists, Design Sheetmetal Australia offers reliable, end-to-end support, from early design stages through to final delivery.

ARCHITECTURAL CLADDING PRODUCT RANGE

RIBBON STRIP	The true art of modern finesse, our Ribbon strip cladding system commands strong street presence that reflects a sophisticated aesthetic.
STANDING SEAM	Bold and polished, the contemporary look and feel of Standing Seam walls and roofs are matched only by its extreme durability.
DIVERSACLAD®	Looking for a clean, seamless aesthetic with a simple application? Diversaclad® Interlocking Panels are an ideal choice.
TRAYLINE	Trayline allows for an easy and cost-effective installation. Achieve the most out of your architectural cladding façade without complication.
FLATLOCK	Flatlock cladding is reminiscent of beautiful tiles or scales, with a virtually flat, overlapping application.
SNAP ON 45	A striking 45mm rib profile with concealed fixings, Snap On 45 delivers a clean, seamless finish for both façade and roofing applications, with flexible panel widths for greater design freedom.









CERTIFICATE OF COMPLIANCE
NATIONAL CONSTRUCTION CODE OF AUSTRALIA (NCC)
ROOFING & CLADDING

It is important that building products comply with the National Construction Code of Australia (NCC). The use of non-conforming products may leave builders, designers and installers at risk of future claims and damages. Each participant in the building process including the installer, builder, designer and supplier is responsible for ensuring products used, a) comply with relevant Australian Standards and NCC provisions and b) are suitable for the intended use. This is referred to as the Chain of Responsibility.

Design Sheetmetal can confirm that the following roofing & cladding products meet the minimum requirements of relevant Australian Standards and the NCC, and are included in this specification:

Ribbon Strip
Diversaclad®
Trayline
Standing Seam
Snap On 45

MATERIALS & FINISHES: The following materials and finishes are included in this specification:

MATERIALS	COLORBOND® steel COLORBOND® steel Matt COLORBOND® steel Ultra	COLORBOND® steel Metallic ZINCALUME® steel Galvanised steel	SUPERDURA® stainless steel
BASE METAL THICKNESS (BMT)	0.55mm		
MINIMUM YIELD STRENGTH (MPa)	G300		

COMBUSTIBILITY

Design Sheetmetal products manufactured from COLORBOND® and ZINCALUME® steels are suitable for use where a non-combustible material is required as per the NCC.

IGNITABILITY INDEX (0 - 20): 0
HEAT EVOLVED INDEX (0 -10): 0
SPREAD OF FLAME INDEX (0 -10): 0
SMOKE DEVELOPED INDEX (0 -10): 2

SCOPE OF USE - INSTALLATION - ACCEPTABLE CONSTRUCTION

All products listed may be used as roofing and/or wall cladding when designed and installed using the product specific design manuals.

AUSTRALIAN STANDARD COMPLIANCE

Information published for Design Sheetmetal products has been determined from testing at NATA accredited facilities. Design Sheetmetal products and information are compliant to the following standards:

Design Information, Product Capacities, Installation/Construction, Materials, Testing

AS 1562.1 - 2018 Design and installation of sheet roof and wall cladding. Part 1: Metal

AS 4040.0 - 1992 Methods of testing sheet roof and wall cladding. Method 0: Introduction, list of methods and general requirements

AS 4040.I - 1992 Methods of testing sheet roof and wall cladding. Method 1: Resistance to concentrated loads

AS 4040.2 - 1992 Methods of testing sheet roof and wall cladding. Method 2: Resistance to wind pressures for noncyclonic regions

AS/NZS 1170.0:2002 Structural design actions, Part 0: General principles

AS/NZS 1170.1:2002 (Reconfirmed 2016) Structural design actions, Part 1: Permanent, imposed and other actions

AS/NZS 1170.2- 2021 Structural Design Actions, Part 2: Wind actions

AS/NZS 1170.3:2011 (Reconfirmed 2016) Structural design actions, Part 3: Snow and ice actions

AS 4055 - 2021 Wind loads for housing

AS 3959 - 2018 Construction of buildings in bushfire prone areas

AS 1397 - 2021 Continuous hot-dip metallic coated sheet steel and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium

AS/NZS 2725:2013 Prefinished/prepainted sheet metal products for interior/exterior building applications - Performance requirements

SA HB 39:2015 Installation code for metal roof and wall cladding

DEEMED TO SATISFY COMPLIANCE

NCC 2022 Volume I - For class 2 to 9 Buildings (Non-Residential). Section B1.4 Structural Resistance, Section FI.0 Deemed-to-Satisfy Provisions, Section FI.5 Roof coverings.
NCC 2022 Volume 2 - For class I and 10 Buildings (Housing Provisions). Section 3.5.I Roof cladding

DESIGN SHEETMETAL

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COLORBOND® is a registered trademark of BlueScope Steel Limited.

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