



Indurabond

ALUMINIUM COMPOSITE PANELS

Technical Manual

Version 3.0
October 2025

CONTENTS

01	INTRODUCTION	
	1.1 About this Manual	4
	1.2 Document Tracking	4
	1.3 About Indurabond	6
	1.4 Key Features	7
02	QUALITY	
	2.1 Manufacturing Quality	9
	2.2 Acceptance Variation	9
03	PANEL SPECIFICATIONS	
	3.1 Typical Composition	10
	3.2 Dimensions & Weight	10
	3.3 Technical Data	11
04	FINISHES	
	4.1 Coating Types	13
	4.2 PVDF Specifications	14
05	PERFORMANCE	
	5.1 Fire Resistance	16
	5.2 Average Expansion	16
	5.3 Thermal Insulation Properties	16
	5.4 Windloading	17
06	INSTALLATION	
	6.1 Fixing System	21
	6.2 Fixing Specification	21
	6.3 Installation Guidelines	22
	6.4 Installation Sequence	22

CONTENTS

07

FABRICATION METHODS

7.1	General Methods	23
7.2	Edge Close-out & Treatment Details	26

08

WARRANTY

8.1	Overview	27
8.2	Cleaning and Maintenance	28

09

MICELLANEOUS

9.1	Protective Film	29
9.2	Handling & Storage	29
9.3	Sustainability	29

01 - INTRODUCTION.

1.1 About this Manual.

This manual has been developed to effectively assist architects, builders, councils and installers to work with Paneltec's Aluminium Composite Panel; Indurabond.

Due to the uncontrollable conditions and methods of job scope, as well as the variable skills and judgment of users/installers and the quality of equipment, tools, etc, the suggestions and recommendations contained in this manual are provided without warranty.

The information and recommendations contained here in are believed to be correct at time of publishing October 2025.

Paneltec reserves the right to revise the contents of this manual.

1.2 Document Tracking.

VERSION #	DATE	CHANGES
1.0	December 2019	Initial Issue
2.0	July 2021	Installation Details Updated & Formatting Changes
3.0	October 2025	Installation Details Updated & update to windload table & Warranty added.



1.3 About Indurabond.

Indurabond Aluminium Composite Panel (ACP), is Paneltec's highly versatile façade cladding panel, offering excellent durability and extreme weather resistance.

The 4mm thick composite panel is comprised of a fire rated core, sandwiched between two aluminium metal cover sheets. This results in an outstanding surface flatness and high workability, coupled with an excellent strength to weight ratio.

Indurabond can be easily and accurately installed by being fabricated into pre-made cassettes and then fixed to a top hat sub-structure with hidden mechanical fittings.

Indurabond requires minimal maintenance and is backed with a 15 year warranty when installed by a licensed installer. With a long track record of consistency, reliability and quality, in addition to our large stock levels, unlimited colour range and continual product development; Indurabond is well-equipped to meet the requirements for most low-rise projects.

1.4 Key Features.



FIRE RATED

Indurabond has been tested to the NFPA 285 test and has passed.
Indurabond has unrestricted use below 10m and 1m from a boundary.



FULL COMPLIANCE

Indurabond has received the PASS report showing pathways to compliance.
Please contact the Paneltec team to receive files.



COST EFFECTIVE

Indurabond has had consistent growth not only due to the desire for a clean and modern look, but also as a product offering rapid cost-effective installation.



LOW MAINTENANCE

The Indurabond finish has undergone 40+ years of exposure testing which is continuing to confirm the superior durability and low maintenance of fluoropolymer coatings.



PAINT SYSTEM

Indurabond only uses the highly recognised PVDF KYNAR 500 or FEVE paints known for their durability, providing the optimum weather and UV resistance.



WEATHERPROOFED

Indurabond is weatherproofed to E2 requirements and tested according to AS/NZS 4284 and passed to a high level.



CONCEALED FIX SYSTEM

Indurabond can be installed by routing and folding panels into the concealed fix z-angle cassette system



WARRANTY

Indurabond has up to a 15 year warranty when installed by a licensed installer



Tauranga House

2.1 Manufacturing Quality.

A dedication to the total fulfilment of our client's and customer's expectations is reflected by a complete quality control system, beginning at the point of specification and continuing through to delivery of the guaranteed products.

All activities are carried out in a manner which:

- Uses the framework of ISO9001 Quality Standards to verify the quality of our systems.
- Ensures that our products and services are of the highest standards.
- Creates continuous improvements to our product through the application of the best quality practices.
- Paneltec New Zealand has a full ISO 10005 Quality Management plan in place.

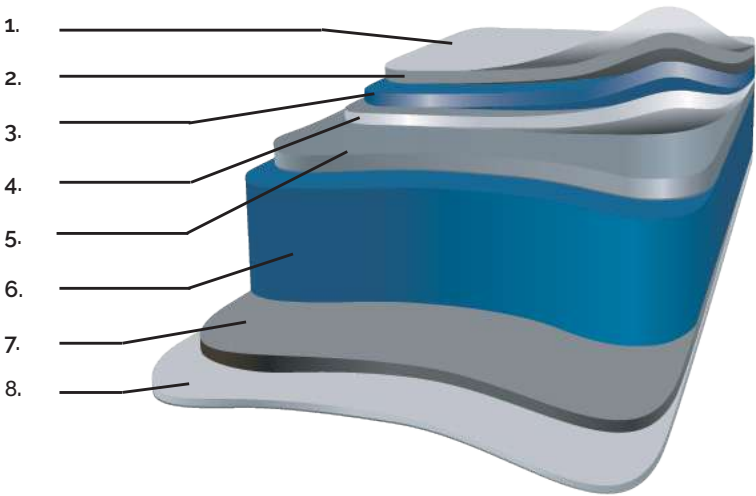
2.2 Acceptance Variation.

WIDTH	±2.0 mm
LENGTH	±4.0 mm
THICKNESS	4 mm
BOW MAXIMUM	0.5% of the length and/or width
SQUARENESS MAXIMUM	5.0mm
SURFACE DEFECTS	The surface shall not have any irregularities such as dents, scratches and other imperfections in accordance with our quality assurance.

03 - PANEL SPECIFICATIONS.

3.1 Typical Composition.

- 1. Peel-off Protective Film
- 2. Clear/Nano Coating
- 3. PVDF Coloured Coating
- 4. Primer Coating
- 5. 0.5mm Aluminium Skin
- 6. 3mm FR Core
- 7. 0.5mm Aluminium Skin
- 8. Polyester Anti-corrosion Coating



Aluminium Skins.

Surface material both sides: 0.5mm Aluminium sheets of a minimum 3003 series grade.

Core Material.

The standard Fire Retardant (FR) core has a minimum 70% non-combustible mineral filled core. The FR core contains hydroxide, a non-combustible mineral designed to release water vapour and supress fire spread.

3.2 Dimensions and Weight.

Width	Length	Thickness	Weight [Kg/M²]
	2500		
1570	3200	4mm	7.3
	4000		
Custom sizes are available when a minimum order quantity is met. Please speak to the Paneltec team.			

3.3 Technical Data.

Classification	Test Standard	Unit	4mm Indurabond/FR
Panel Weight		[kg/m ²]	7.3
Core Density	ASTM C271	kg/m ³	1350kg/m ³
Limit of Application		°C	-40C - +80C
Tensile Strength	ASTM E8	kg/m ²	5.15
Yield Strength	ASTM E8	kg/m ²	12.7
Elongation	ASTM E8	%	7.1
Flexural Stiffness (250mm span)	ASTM C393	kg/m ²	6.7x10 ⁸
Flexural Elasticity	ASTM C393	kg/m ²	3666
Deflection Temperature	ASTM D648	°C	116
Thermal			
Thermal Expansion	ASTM D696	x10 ⁻⁶ / °C	24
Thermal Conductivity	ASTM D976	Kcal/mhr °C	0.39
Bond Integrity			
> Vertical Pull	ASTM C297	N/mm ²	5.9
> Drum Peel	ASTM D1781	mmN/mm	368.7
> Flat Shear	ASTM D1002	N/mm ²	6.84
Sound			
Sound Transmission Loss	ISO140/3		RW 26
Sound Transmission Class	ASTM E90		STC 25
Aluminium Skin			
Tensile Strength		N/mm ²	Rm140
A0.2% Proof Stress		N/mm ²	Rp0.2100
Elongation (50mm)		%	A501



04 - FINISHES.

4.1 Coating Types.

Stove Lacquering.

Indurabond only uses the highly recognised PVDF KYNAR 500, FEVE or VITREFLON V700 paints known for their high durability. These premium paints provide an optimum resistance to weather and industrial pollution. More than 40 years of South Florida exposure testing is continuing to confirm the superior chemical and physical properties of fluoro polymer coatings.

Indurabond has unlimited colour options, we are able to match any colour, from any other colour range. For a full list of standard Indurabond colours, refer to our Paneltec colour chart.

Other Coatings.

- Imitation anodise finish
- Imitation stone finish
- Imitation wood finish
- Imitation metal finish

Colour matching is available when minimum order quantities are met. Send your request to Paneltec and we can confirm its viability.

4.2 PVDF Specifications.

Classification	Test Standard	Result	Remark
Substrate	ASTM D1005	Pass	Aluminium
Flexibility	ASTM D4145 ECCA T7 NCCA 11-19	Pass	1~2T - No Cracking
DFT	ASTM D1400 ASTM D1005 NCCA 11-13, 14, 15	Pass	
Colour Difference	ASTM 2244	$\Delta E < 5$	4000hrs
Gloss Meter	ASTM D523	Pass	
Gloss Retention	ASTM 2244	85%	4000hrs
Chalking Resistance	ASTM 2244	<8 units	4000hrs
Pencil Hardness	ASTM D3363	2H	
Dry Film Adhesion		Pass	
Wet Adhesion	ASTM D3363	Pass	38°C, 24hrs
Hot Adhesion		Pass	100°C, 24hrs
Reverse Impact Resistance	ASTM D2794	No Cracking	12.7mm x 0.5kg x 500mm
Bending/Gardner Impact	ASTM D3281	Pass	Normal
Solvent Resistance	ASTM 2794	Pass	MEK double rubs
Acid Resistance	ASTM 1308	Pass	7 days soaking in 10% H ₂ SO ₄
Alkali Resistance	ASTM 1308	Pass	7 days soaking in 10% NaOH
Detergent Resistance	ASTM D2248	Pass	72 hrs soaking in 3% detergent
Salt Resistance	ASTM B117	Includes the following:	
Gloss Retention	ASTM D523	0.8% change	5000hrs
Colour Retention	ASTM 2244	E<0.68	5000hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)
Humidity Resistance	ASTM D714	Pass	2000hrs
	ASTM B117	Includes the following:	
Gloss Retention	ASTM D523	No visible change	5000hrs
Colour Retention	ASTM 2244	E<0.52	5000hrs

Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)
Weathering Resistance	ASTM G53	Includes the following:	
Colour Difference	ASTM D523	6.2% Change	5000hrs
Colour Retention	ASTM 2244	E<0.27	5000hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)
Chemical Resistance	ASTM C207	Pass	Mortar, 24hrs
		Pass	10% Hcl, 15 min
	ASTM D1308	Pass	70% HNO ₃ Vapours, 30 min
		Includes the following:	
Gloss Retention	ASTM D523	6.2% Change	16hrs
Colour Retention	ASTM 2244	No Change	16hrs
Chalk Resistance	ASTM 4214	Rating: 10	Top rating - no chalk (5000hrs)



BMW Wairau Park

05 - PERFORMANCE.

5.1 Fire Resistance.

The Fire Resistance standards achieved with Indurabond are as follows:

INDURABOND			
TEST STANDARD	RESULT		
AS1530.3	Pass	Ignitability Index	0
	Pass	Heat Evolved	0
	Pass	Spread of Flame	0
	Pass	Smoke Developed	0-1
EN13501	B-s1, d0		
ISO 9705	Group 2		
NFPA 285 (large scale wall test)	PASS		

Given the lack of flame propagation in extensive large scale testing, Indurabond FR can be used on a performance basis to meet fire resistance requirements and has unrestricted use below 10 metres and 1 metre from a boundary.

5.2 Average Expansion.

Material	Expansion Coefficient (x10 ⁻⁶ /°C)	Elongation per 1000mm T=50°C
Indurabond	23.8	1.2mm
Aluminium	23.8	1.2mm
Zinc	26.7	1.3mm
Steel	12.2	0.6mm
Concrete	12	0.6mm

5.3 Thermal Insulation Properties.

Thermal Resistance		
FROM -50°C to +80°C		
Panel Thickness (mm)	Thermal Resistance (m ² .K/W)	Heat Transmission Coefficient W/(m ² .K)
4	0.0103	5.54

5.4 Windloading.

Capacities based on material properties taken from AS1664.1 and verified by tests.

Indurabond ACP Properties

$E = 70000 \text{ Mpa}$ (MPa Elastic modulus)

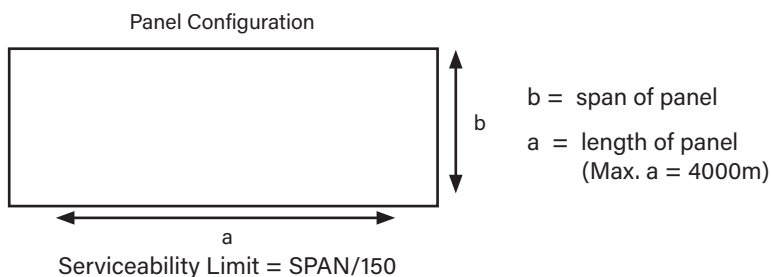
$t = 4.0\text{mm}$ (Overall thickness of ACP)

$t_1 = 0.5\text{mm}$ (Aluminium cover sheet thickness)

$I = 3083\text{mm}^4 / \text{m}$ (Second moment of area per m width)

$Z = 1542\text{mm}^3 / \text{m}$ (Section modulus per m width)

$F L = 82.875 \text{ MPa}$ (Design flexural strength)



Substructure minimum steel specification

$F_y = 270\text{Mpa}$

$F_u = 350\text{Mpa}$

$t = 115\text{mm BMT}$

Panel Width b (mm)	Panel Length a (mm)	Ratio a/b	Limiting Pressure		Screw Capacity, Φ			
			Strength P_u (mm)	Servicability P_s (kpa)	0.718	0.821	0.941	1.078
					Max. Spacing of screws fixing cassette to substructure (mm)			
					No. 8	No. 10	No. 12	No. 14
400	400	1.0	9.000	9.000	200	225	260	300
	600	1.5	9.000	5.438	200	225	260	300
	800	2.0	9.000	4.194	200	225	260	300
	1000	2.5	9.000	3.751	200	225	260	300
	1200	3.0	9.000	3.555	200	225	260	300
600	600	1.0	9.000	3.126	130	150	170	200
	900	1.5	7.254	1.611	160	185	215	245
	1200	2.0	5.899	1.243	200	230	265	300
	1500	2.5	5.417	1.111	220	250	285	300
	1800	3.0	5.204	1.053	225	260	300	300
900	900	1.0	5.697	0.926	140	160	180	210
	1350	1.5	3.224	0.477	245	280	300	300
	1800	2.0	2.622	0.368	300	300	300	300
	2250	2.5	2.408	0.329	300	300	300	300
	2700	3.0	2.313	0.312	300	300	300	300
1200	1200	1.0	3.205	0.391	185	210	240	280
	1800	1.5	1.813	0.201	300	300	300	300
	2400	2.0	1.475	0.155	300	300	300	300
	3000	2.5	1.354	0.139	300	300	300	300
	3600	3.0	1.301	0.132	300	300	300	300
1500	1500	1.0	2.051	0.200	230	265	300	300
	2250	1.5	1.161	0.103	300	300	300	300
	3000	2.0	0.944	0.080	300	300	300	300
	3750	2.5	0.867	0.071	300	300	300	300
	4000	3.0	0.852	0.070	300	300	300	300

Regarding the Windloading tables on the following pages, where sufficient stiffeners are used, the dimensions below can be read as panel section sizes between stiffeners. Larger panel sizes are possible with suitable engineering.

Stiffener Span Tables.

Table 1 - Panel Stiffener c/c Spacing (mm)											
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Ultimate Limit State (ULS) Wind Load (kPa or kN/m2)									
		0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
4000	200	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4000	400	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4000	600	NR	NR	NR	NR	NR	NR	NR	600	550	550
4000	800	NR	NR	NR	NR	750	700	650	600	550	550
4000	1000	NR	NR	900	850	750	700	650	600	550	550
4000	1200	NR	1000	900	800	750	700	650	600	550	500
4000	1400	1200	1000	850	800	700	600	500	450	400	350
4000	1600	1200	950	800	700	550	450	400	350	300	250
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Serviceability Limit State (SLS) Wind Load (kPa or kN/m2)									
		0.38	0.75	1.13	1.50	1.88	2.25	2.63	3.00	3.38	3.75
4000	200	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4000	400	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4000	600	NR	NR	NR	NR	NR	NR	NR	600	550	550
4000	800	NR	NR	NR	NR	750	700	650	600	550	550
4000	1000	NR	NR	900	850	750	700	650	600	550	550
4000	1200	NR	1000	900	800	750	700	650	600	550	500
4000	1400	1200	1000	850	800	700	600	500	450	400	350
4000	1600	1200	950	800	700	550	450	400	350	300	250
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Ultimate Limit State (ULS) Wind Load (kPa or kN/m2)									
		0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
1600	200	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1600	400	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1600	600	NR	NR	NR	NR	NR	NR	NR	NR	600	550
1600	800	NR	NR	NR	NR	NR	750	700	650	600	550
1600	1000	NR	NR	800	800	750	700	650	650	600	550
1600	1200	NR	800	800	750	700	650	600	600	550	500
1600	1400	NR	800	800	700	650	600	500	450	400	350
1600	1600	NR	800	700	600	550	450	400	350	300	250
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Serviceability Limit State (SLS) Wind Load (kPa or kN/m2)									
		0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
1600	200	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1600	400	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1600	600	NR	NR	NR	NR	NR	NR	NR	NR	600	550
1600	800	NR	NR	NR	NR	NR	750	700	650	600	550
1600	1000	NR	NR	800	800	750	700	650	650	600	550
1600	1200	NR	800	800	750	700	650	600	600	550	500
1600	1400	NR	800	800	700	650	600	500	450	400	350
1600	1600	NR	800	700	600	550	450	400	350	300	250

*NR = Not Required

Table 1 - Panel Stiffener c/c Spacing (mm)											
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Ultimate Limit State (ULS) Wind Load (kPa or kN/m ²)									
		0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
800	200	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
800	400	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
800	600	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
800	800	NR	NR	NR	NR	NR	NR	NR	NR	400	400
800	1000	NR	NR	500	500	500	500	500	500	500	500
800	1200	NR	600	600	600	600	600	600	600	600	600
800	1400	700	700	700	700	700	700	700	650	600	550
800	1600	800	800	800	800	750	750	700	650	600	550
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Serviceability Limit State (SLS) Wind Load (kPa or kN/m ²)									
		0.38	0.75	1.13	1.50	1.88	2.25	2.63	3.00	3.38	3.75
800	200	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
800	400	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
800	600	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
800	800	NR	NR	NR	NR	NR	NR	NR	NR	400	400
800	1000	NR	NR	500	500	500	500	500	500	500	500
800	1200	NR	600	600	600	600	600	600	600	600	600
800	1400	700	700	700	700	700	700	700	650	600	550
800	1600	800	800	800	800	750	750	700	650	600	550

Table 2 - Panel to Indurafix 1st/2nd Z Fix Fastener c/c Spacing (mm)											
Panel Breadth (mm)	Panel Width (mm)	Maximum Allowable Ultimate & Serviceability Limit State (USLS) Wind Load (kPa or kN/m2)									
		0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
4000	200	500	500	500	500	500	500	500	500	500	500
4000	400	500	500	500	500	500	500	500	500	500	500
4000	600	500	500	500	500	500	500	500	500	500	500
4000	800	500	500	500	500	500	500	500	500	500	450
4000	1000	500	500	500	500	500	500	500	450	400	350
4000	1200	500	500	500	500	500	500	450	400	350	300
4000	1400	500	500	500	500	500	450	400	350	300	250
4000	1600	500	500	500	500	450	400	350	300	250	200

*NR = Not Required



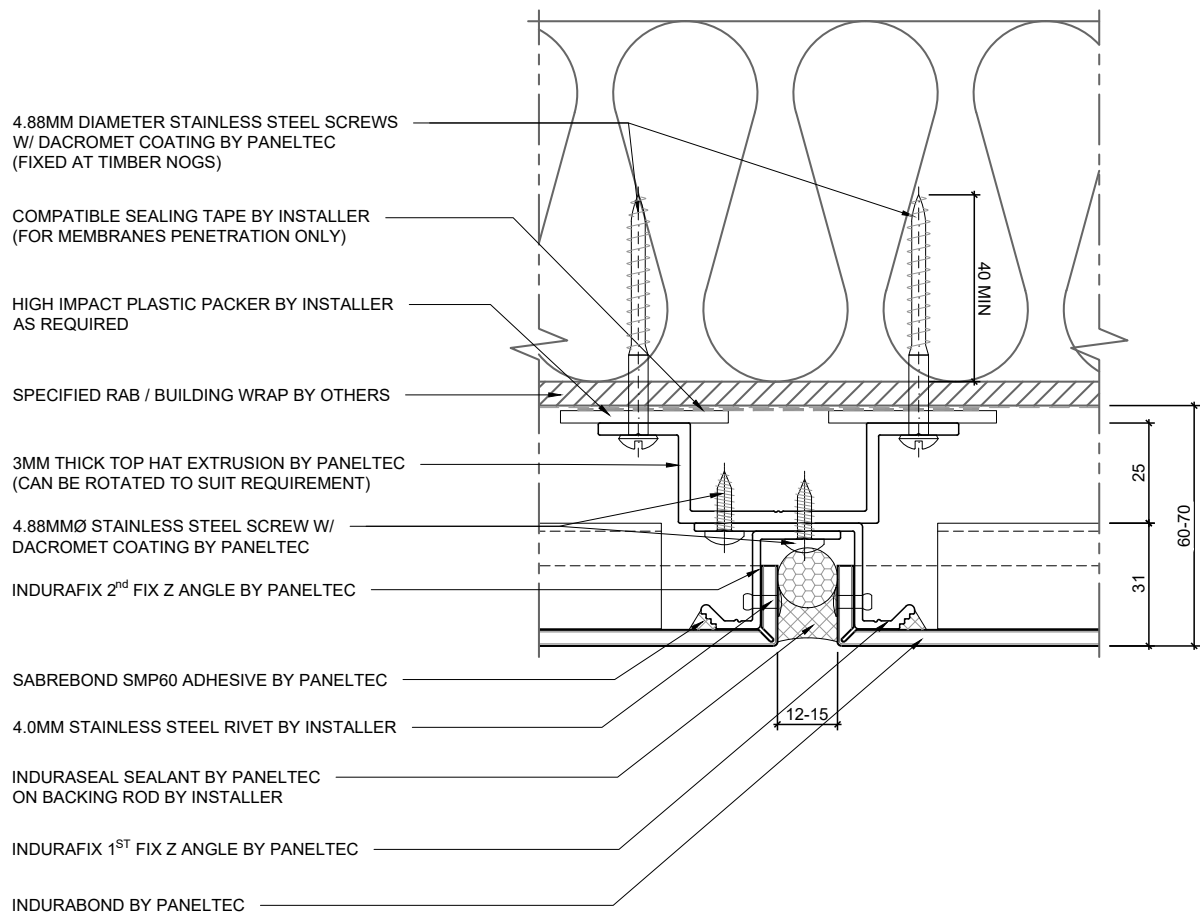
Sebel Hotel

06 - INSTALLATION.

6.1 Fixing System.

Below is our standard vertical panel joint detail, refer to our installation manual for all other details.

Vertical Panel Joint.



6.2 Fixing Specification.

Indurabond ACP Fixing Specification:

Rivets / Cassette

- Minimum dia. 5mm rivets for fixing the Indurabond ACP to Z-section rails.
- Minimum 3 rivets per side, not including rivet securing the corner fold.
- Maximum spacing of rivets - 300mm.
- Minimum 20mm edge fold in Indurabond ACP sheet.
- Minimum edge distance to edge of hole in Indurabond ACP $e = 2 \times d$ ($= 10\text{mm}$ for 5mm rivet).

6.3 Installation Guidelines.

- All sheets should be installed in the same direction as marked on the protective film to prevent possible finish variation.
- As minor colour variation can occur between production lots, it is recommended to place total requirement for a project in one order to ensure colour consistency.
- Where aluminium materials come in contact with dissimilar metals, a proper insulator or caulking tape should be applied to insulate between dissimilar materials in order to avoid corrosive and electrolytic action.
- The panel returns should not be caulked before protective film is removed.
- Stainless steel fixing is recommended for durability and longevity.
- Panel should allow minimum 1000mm²/LM of ventilation.

NOTE: Please refer to the Paneltec Indurabond Installation Manual for full installation details. Paneltec design team is available for design support and completion of shop drawings, contact Paneltec for more information.

6.4 Installation Sequence.

It is recommended that installation sequence is as follows:

1. Installation of the RAB (Rigid Air Barrier) as per manufacturers requirements.
2. Installation of the water membrane as per manufacturers requirements.
3. Installation of tophats, levelled and fixed as per wind loading requirements.
4. When required, intumescent cavity barriers shall be installed in accordance with NZBC Acceptable Solution C/AS2, Amendment 3, 2 November 2023 Section 5.8.5.
5. Indurabond panels fabricated and prepared for installation.
6. Installation of fabricated Indurabond panels, fixing through Z angles to tophats as per wind loading requirements.
7. Caulking applied to panel joints as per manufacturers requirements.
8. Removal of protective film, within 45 days of installation.

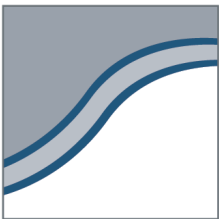
7.1 General Methods



Cutting.

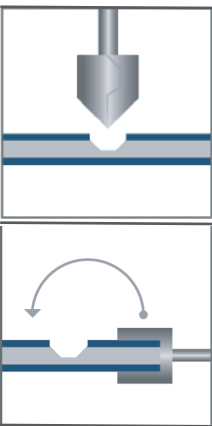
Indurabond can be cut with a wall-saw, circular saw, bandsaw or jigsaw. The requirements for a circular saw are as follows:

The cutting tool material to be carbide tipped, thickness 2-4mm	
Tooth geometry:	Trapeze/flat
Tooth pitch:	10-12mm
Rake Angle:	5° (positive)
Clearance Angle:	15°
Max cutting speed:	500m/min
Max feed speed:	30m/min



Contour Cutting.

Indurabond panel can be contour cut with water jets, CNC routers, copy routers and jigsaws.



Routing/Folding.

Indurabond panel can be cold shaped, enabling it to form various shapes and sizes. A rectangular or V-shaped groove can be routed on the back of the panel, following potential fold lines. A thin layer of core should remain at the base of the groove. The panel can then be hand folded along this groove, creating a precise and even fold. The outer radius of the fold can be determined by the shape and width of the routed groove.

There must be between 0.3mm and 0.5mm of core material left at the base of the routed groove. Too much material can cause delamination at the corner, cracking of the core when a back fold is preformed and result in a larger radius fold than desired. It will also make folding the panel more difficult and prevent the required fold angle from being obtained.



Shearing.

Shearing can be done with a guillotine. Ensure the blanking tools are padded. Shearing causes a slight roll down along the cut edge of the panel cover sheet



Punching.

The punching of flat formed parts from Indurabond is performed in the same way as a solid aluminium sheeting, using sharp tools and dies with minimal cutting clearance.

Varying shapes may easily be punched with normal aluminium punching machinery. As with shearing, a slight roll down may occur.



Roll Bending.

Indurabond panel can be bent with a roll-bending machine. Use polished rollers free of imperfections only. Minimum radius of 60mm.



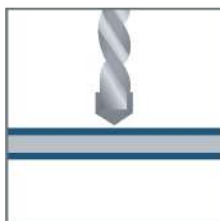
Screwing.

Indurabond can be screwed with conventional stainless steel for wood and metal. For outdoor use allow for thermal expansion.



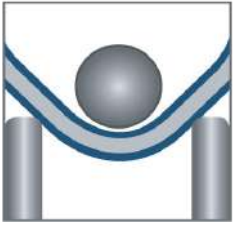
Riveting.

Riveting is possible with the usual equipment and solid rivets or blind rivets. For outdoor use allow for thermal expansion.



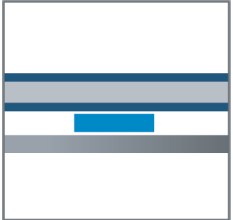
Drilling.

Indurabond panel can be drilled with centre point twist drills normally used for aluminium and plastics or machines common for metals. Drill material: High-Speed Steel (HSS).



Bending.

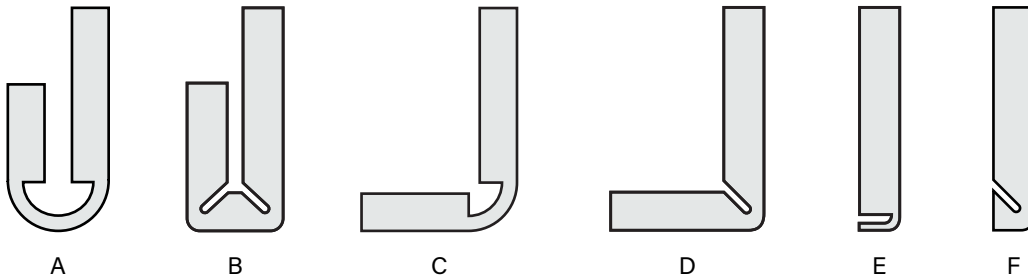
Bending is possible with a folding table or brake press. The inside bending radius is roughly 10 times the Indurabond panel thickness. Use protective foils. There is more spring-back effect than with solid aluminium sheet. For serial production, tests should be made on sample panels.



Gluing.

Usual metal adhesives or double sided VHB tape. There is low adhesion to the core.

7.2 Edge close-out & Treatment details.





Louie Berkers Collision Repairs

08 - WARRANTY.

8.1 Overview.

What is covered in our warranty: We warrant that Indurabond, as described in this manual as the product manufactured, sold and delivered by us shall be free from any material defects, conform to our applicable specifications, and will perform in accordance with our product documentation under normal conditions for a period of 15 years.

What we will do to fix the product: In the event of a breach of this warranty, we shall, at our sole option and expense, promptly repair or replace the defective products or refund the purchase price to the extent any individual products or panels require replacement. Such remedy will be the sole and exclusive remedy for any breach of warranty.

Warranty exclusions: Our warranty does not cover:

1. Damage caused by accident, abuse, misuse, fire, earthquake, volcanic activity or other external cause.
2. Damage caused by installation or modification of the products outside of our published specifications.
3. Defects caused by normal wear and tear or otherwise due to the normal aging of the product.
4. A failure to follow the required washing requirements.

Washing requirements: The property's environmental category is a classification of the harshness or severity of the environment it is in. We categorise this, by describing the surrounding environment as:

1. Moderate
2. Severe

A number of factors can contribute to the environmental category, but the most significant consideration is how close the property is to the coast.

[View our warranty document for full details on classification of moderate and severe conditions.](#)

For anything within 500 metres of a salt water body, please contact us for confirmation of your warranty. This environment may be extended inland by prevailing winds & local conditions.

8.2 Cleaning and Maintenance.

The following washing regime is an essential requirement in ensuring a valid warranty:

MODERATE	SEVERE
Rain washing plus manual washing every 6 Months	Rain washing plus manual washing every 3 months

When cleaning surfaces, proceed as follows:

1. Carefully remove any loose deposits with a wet sponge.
2. Use a soft, non-abrasive brush and a mild soapy solution to remove dust, salt and other deposits. It is important to first test soap on a small surface to ensure no damage will be caused by the soap.
3. Rinse off with clean water or use a power washer with no more than 3000 PSI and used no closer than 25-30cm.

Other recommended cleaning agents for manual washing are:

- Mineral spirits
- Organic cleaners
- PH-Neutral Solvents

Claim Procedure: We must be notified in writing within 20 days of the discovery of any claimed defects, specifying the nature of the defects. You will allow us and/or our agents unfettered access to inspect the alleged defective products at all reasonable times as we may require.

Refer to our warranty document for full terms and conditions.

9.1 Protective Film.

- Make sure no damage will occur to the panel following removal of protective film.
- Remove protective film within 45 days of installation to avoid glue residuals on panel surface due to weathering.
- Do not apply PVC tapes, polyurethane sealant or silicone sealant onto Indurabond protective film. The plasticiser contained in these materials can penetrate the protective film and cause a gloss change in the coating.
- Do not apply spray paint or permanent marker to the film as the colour may penetrate the film and affect the panel.

9.2 Handling and Storage.

- Considerable care should be taken in the handling of Indurabond.
- Indurabond panels are sensitive to impact, particularly shocks from small, hard objects, which can dent the aluminium cover sheet.
- A minimum of two people should be used when moving large sheets to avoid scratching.
- To prevent surface damage when stacking Indurabond, there should be nothing between the panels.
- Indurabond should be stored in a cool and dry area where temperature is relatively stable.
- Pallets of Indurabond should be stored horizontally with adequate support to prevent sagging.
- Stacked pallets should be identically sized and not more than four (4) pallets high.

9.3 Sustainability.

Indurabond has been designed with an expected performance life of over 50 years.

All Paneltec products have been developed with the health of the environment and community in mind. As part of our commitment to using recyclable or reusable materials wherever possible; all Indurabond ACP is 100% recyclable.



Auckland Office

5 Piermark Drive
Rosedale
Auckland 0632
0508 726 358

Head Office

10 Mako Street,
Dargaville
09 439 4357

info@paneltec.co.nz
www.paneltec.co.nz



Indurabond
ALUMINIUM COMPOSITE PANELS