



TECHNICAL MANUAL

ULTRAWOOD Non-combustible Timber Cladding & Battens*

1. Introduction
2. Physical Properties
3. Fire Performance
4. Installation

1.1 About This Manual:

This manual has been developed to effectively assist fabricators and contractors to work with ULTRAWOOD. Due to the uncontrollable conditions onsite and different methods of job scope, as well as the variable skills and judgment of installers and the quality of equipment, tools, etc, the suggestions and recommendations contained in this manual are provided without warranty. The information and recommendations herein are believed to be correct at time of publishing.

BLUECHIP reserves the right to revise the contents of this manual without prior notice. Any construction or use of the product must be in accordance with all local zoning and/or building codes and in accordance with the current NCC at the time of use. Except as contained in a written warranty certificate, the supplier does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.

1.2 Company Background:

Founded in 2003 by five brothers, BLUECHIP has grown every year since to become one of Australia's leading suppliers of architectural building envelopes. BLUECHIP's product range covers the complete system from the structure out including all types of cladding materials, composite decking, sub-framing, insulation, waterproofing and fixings.

With offices in Sydney, Melbourne and Perth, BLUECHIP has supplied more than 3,000,000m² of materials to Australian projects since 2003. Our commitment to innovation and ongoing investment in R&D ensures BLUECHIP will continue to lead the market with BCA/NCC compliant facade solutions in the years ahead.

For architects and consultants, BLUECHIP's wide range of different materials and 'complete-system' approach enables the creation of inspiring high-performance facades. For builders and contractors, BLUECHIP's large local stock, well established supply chains and genuine appreciation for our clients means you can trust us to deliver as promised every time.

1.3 Company Details:

Company: Blue Chip Group Pty Ltd
ABN: 98 162 282 064
Head Office: 16 Ashby Close, Forrestfield WA 6058
Phone: 1300 945 123
Email: sales@bluechipgroup.net.au

***Please Note:** This manual covers ULTRAWOOD cladding profiles but does not specifically cover ULTRAWOOD 2-piece battens. ULTRAWOOD 2-piece battens can be fixed to; a solid wall, a framing system, a suspended ceiling system or any other suitable structural support in accordance with site specific engineering and any other relevant codes, standards or NCC requirements. Reference the latest version of ULTRAWOOD Span Tables to assist with detailing.



1.4 Product Description:

Non-Combustible Timber Cladding

ULTRAWOOD is an innovative new generation exterior cladding product made from highly durable marine-grade aluminium and factory pre-finished using the latest matt-effect technology in 28 realistic timber colours. Deemed-to-satisfy non-combustible in accordance with the BCA/NCC, it has been fully tested in Australia by CSIRO achieving excellent results to AS 1530.1 and AS 1530.3. Eco-friendly, low maintenance and incredibly durable, ULTRAWOOD is ideal for type A and B construction projects such as high-rise apartments and bushfire rated areas which require non-combustible cladding.

AS 1530.1 Non-Combustible

ULTRAWOOD is a non-combustible cladding product in accordance with the relevant requirements of the NCC/BCA and has been tested by NATA accredited CSIRO to AS 1530.1 and AS 1530.3.

Intelligent Profile

The ULTRAWOOD profile has been intelligently designed to provide excellent usability such as multi-angle mating and it has one single swarf-free contact point for superior consistency and weather-proofing.

Very Light-Weight

Compared to many other timber cladding products, ULTRAWOOD is a very light-weight system weighing only 8.75kg per square metre offering potential structural advantages and cost savings

Natural Aesthetics

The beautiful looking finish on the ULTRAWOOD boards is possible because the latest matt-effect coating technology provides incredible richness and variation along with outstanding long-term durability.

Marine Grade Durability

Along with the marine-grade aluminium base material, the matt-effect ULTRAWOOD coating has undergone extensive durability testing and has been proven to perform in the harsh Australian conditions.

Easy Installation

Supplied in custom lengths, ULTRAWOOD has 155mm cover per board making it fast and easy to install to a simple sub-frame at 600mm centres using secret-fix screws and a colour-matched trim system.

Manufacturer's Warranty

Despite the undisputed durability of high-grade aluminium, ULTRAWOOD cladding offers a 10yr manufacturer's warranty on all different finishes for peace of mind and guaranteed performance.

Colour-Matched Trims

The ULTRAWOOD system is completed using the CLADTRIM click-together trim system covering all common construction details and finished in exactly the same matt-effect coating for a perfect match.

1.5 More Information:

<https://www.bluechipgroup.net.au/timber-cladding-perth/non-combustible-timber-cladding-perth.html>



2.1 Technical Data – Physical Properties:

ITEM	TEST STANDARD	UNIT	RESULT
Alloy Grade / Temper	Actual	-	6063 T5
Material Density	Actual	Kg/m ³	2,709
Magnesium Content	Actual	%	0.7
Silicon Content	Actual	%	0.4
Thermal Expansion	Actual	mm/m/°C	0.025
Weight per Lineal Metre			
▪ 155 x 18mm Groove	Actual	Kg	1.347
▪ 205 x 30mm Cabin	Actual	Kg	1.823
▪ 205 x 48mm Seam	Actual	Kg	2.090
▪ Base Clip for Battens	Actual	Kg	0.507
▪ 50 x 50mm Batten	Actual	Kg	1.062
▪ 100 x 50mm Batten	Actual	Kg	1.618
▪ 150 x 50mm Batten	Actual	Kg	2.281
▪ 200 x 50mm Batten	Actual	Kg	3.763
▪ 250 x 50mm Batten	Actual	Kg	5.252
▪ 300 x 50mm Batten	Actual	Kg	6.065

3.1 Deemed-to-Satisfy Non-combustible:

ULTRAWOOD is deemed-to-satisfy non-combustible as per the requirements of the NCC 2019, clause C1.9(e)(v) and is compliant for use as external cladding or internal lining on any building of types A, B & C construction, classes 2-9.

3.2 Fire Performance – Ultrawood Timber-look Coating:

ITEM	TEST STANDARD	UNIT	RESULT
Non-combustible	AS 1530.1	CSIRO*	Pass
Non-combustible (DTS) – NCC 2019	NCC C1.9(e)(v)	CSIRO*	Pass
Ignitability Index	AS 1530.3	AWTA*	8
Spread of Flame Index	AS 1530.3	AWTA*	0
Heat Evolved Index	AS 1530.3	AWTA*	0
Smoke Developed Index	AS 1530.3	AWTA*	4
Group Number	NCC 2019 C1.10	Equivalence	<1

3.3 Fire Performance – Standard Powdercoat Colours:

ITEM	TEST STANDARD	UNIT	RESULT
Non-combustible	AS 1530.1	CSIRO*	Pass
Non-combustible (DTS) – NCC 2019	NCC C1.9(e)(v)	CSIRO*	Pass
Ignitability Index	AS 1530.3	CSIRO*	0
Spread of Flame Index	AS 1530.3	CSIRO*	0
Heat Evolved Index	AS 1530.3	CSIRO*	0
Smoke Developed Index	AS 1530.3	CSIRO*	3
Group Number	NCC 2019 C1.10	Equivalence	<1

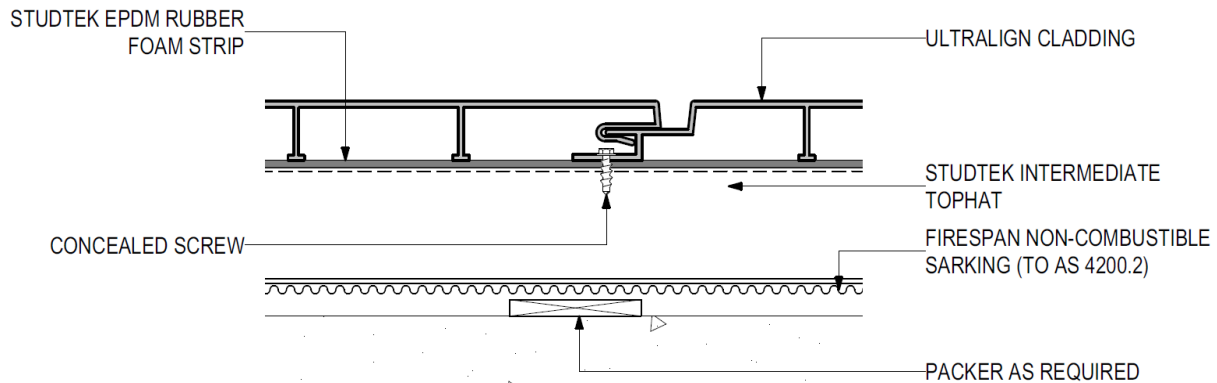
*CSIRO and AWTA are both NATA accredited Australian based laboratories as per the requirements of NCC 2019



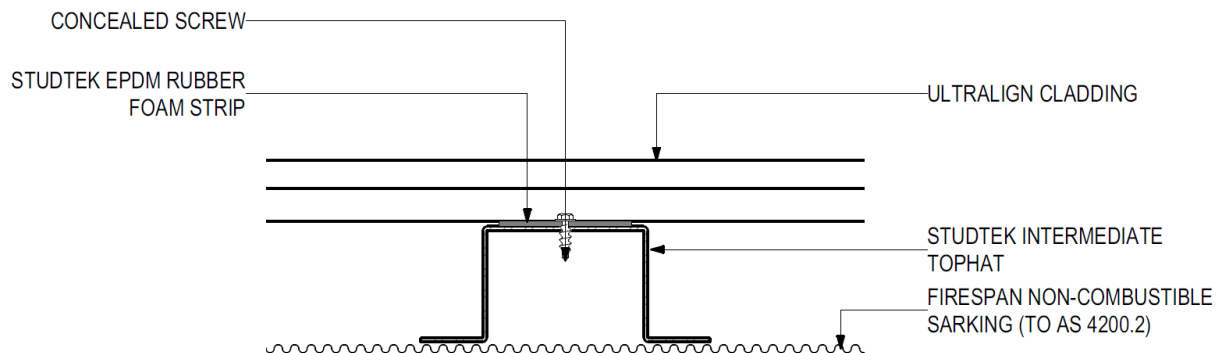
4.1 Installation:

ULTRAWOOD is installed either vertically or horizontally using secret-fix screws to STUDTEK steel top-hats or timber framing. Use CLADTRIM extrusions for all junctions and other details;

Vertical Installation (Typical Plan Detail):



Horizontal Installation (Typical Plan Detail):



ULTRAWOOD installation details are available in PDF and CAD on request. The ULTRAWOOD installation details are provided for conceptual purposes only. These are not the only methods that can be used to attach ULTRAWOOD, nor can they be used generically without consideration for each individual application. Good design engineering may preclude the choice of details used.

4.2 Acceptable System Components:

Sarking (Delete if using SINIAT WD as below – recommended):

Shall be FIRESPAN deemed-to-satisfy non-combustible sarking tested by a NATA accredited laboratory to AS 1530.1. Install and tape in accordance with AS 4200.2 to all cladding areas.

Rigid Sheathing Board (Best practice in lieu of Sarking):

Shall be SINIAT WD 12.5mm deemed-to-satisfy non-combustible, vapour permeable material which assists in achieving a 60/60/60 FRL when installed as per manufacturer's directions.

Cladding Trims:

Shall be CLADTRIM colour-matched trim system supplied by Blue Chip Group Pty Ltd and installed as required to waterproof the façade in accordance with the manufacturer's details.



Sub-framing System:

The sub-framing system to be attached to the main structure in a manner to ensure all applied loadings to the cladding is transferred back to the main structure. Size and spacing of top hat members shall be determined according to applied loads and deflection limitations. Top-hat spacings shall be maximum 600mm to adequately support the cladding system.

Acceptable Sub-framing manufacturers are:

- STUDTEK Facade Framing, 1300 945 123, sales@bluechipgroup.net.au.

Trim Sealant:

All junctions are to be filled and sealed with PROLASTIK silicone based non-stain sealant to manufacturer's specifications immediately prior to installing the outside CLADTRIM profile.

4.3 General Fixing & Maintenance Instructions:

- ULTRAWOOD is to be secret fixed using screws supplied by BLUECHIP.
- ULTRAWOOD can be installed either horizontally or vertically.
- ULTRAWOOD wood decors are equivalent to natural wood surfaces meaning that different grain textures are possible within a single shipment (plain and/or mottled). In order to obtain a uniform overall finish, we recommend considering this fact and, for example, laying out the cladding profiles before starting with the installation to ensure satisfactory appearance.
- ULTRAWOOD boards should be at ambient temperature prior to any cutting or install.
- All ULTRAWOOD boards should be ordered approx. 50mm longer than required onsite to allow for trimming at each board end to remove 20-25mm of uncoated or blemished material resulting from the production and coating process.
- When installing ULTRAWOOD vertically, leave a minimum 10mm gap at the base of the cladded wall between the board and any surface that meets the board in a perpendicular line or plane to the cladding being installed. The same applies above and below a horizontal join in the cladding installed using the CLADTRIM Z-shape Joint Profile.
- ULTRAWOOD can be cut to length with standard high-quality aluminium cutting tools. Recommended blades are a specialised aluminium saw blade with a high number of teeth.
- ULTRAWOOD should be acclimatized as required onsite to ensure temperature equilibrium with the surrounding environment prior to installation.
- The sub-frame shall be level and aligned and installed perpendicular to cladding direction over water-proof membrane at maximum 600 mm centres. The sub-frame shall be minimum 20mm thick to provide adequate ventilation behind the cladding. The back-ventilation cross-section may not be regularly diminished by battens or other objects. The ventilation inlets and outlets must have consistent widths of at least 20 mm.
- Drivers should be adjusted to a low or medium torque setting when fixing screws in to the cladding and screws should not be overdriven but may only be screwed in until the screw head rests against the surface.



General Fixing & Maintenance Instructions (Continued):

- The CLADTRIM corner profiles shall be installed as required and fixed at maximum 600mm centres by pilot drilling and screwing with countersunk stainless-steel screws. Sealant and flashings should be used as required to ensure water proofing.
- To install the CLADTRIM colour-matched extrusions the base section is to be fixed to the wall or sub-frame first and then after ULTRAWOOD cladding is installed sealant should be applied as required to ensure water proofing before the external CLADTRIM piece is clipped into place until it is flush with the cladding face.
- The ULTRAWOOD cladding shall be fixed at maximum 600 mm centres by inserting screws through the grooved v-slot in the cladding boards.
- The cladding shall be installed with a minimum 10mm spacing between all trims, joints, end stops and between any permanent structure and/or penetration to allow for thermal expansion and contraction of the material.
- The cladding shall be installed as per the latest version of the ULTRAWOOD Install Details allowing for any site-specific expansion and contraction requirements and using colour-matched CLADTRIM extrusions for all junctions and abutments.
- The cladding shall be installed as per the latest version of the ULTRAWOOD Draft Specification allowing for any site-specific requirements to ensure the desired long-term performance and aesthetics are achieved.
- The cladding system shall be installed in accordance with the latest version of the Australian NCC/BCA as well as any other government regulations or requirements at any given time and for any particular project.
- The cladding shall be cleaned and maintained as required to avoid any accumulation of surface contaminants and to maintain the desired performance and appearance.
- The supporting wall must be watertight.
- There must be ventilation / drainage at the base of the wall.
- ULTRAWOOD use is limited to wind categories N1, N2 and N3 and should not be used in cyclonic locations without additional site specific design engineering and structural assessment relative to any given project to ensure suitability and NCC compliance.

Important Information:

The instructions in this brochure are for illustration purposes only and are not meant to replace a licensed professional. Any construction or use of the product must be in accordance with all local zoning and/or building codes. The consumer assumes all risks and liability associated with the construction or use of this product. The consumer or contractor should take all necessary steps to ensure the safety of everyone involved in the project, including, but not limited to, wearing the appropriate safety equipment. Except as contained in a written warranty, the supplier does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.