TECHNICAL MANUAL
ULTRAWOOD Non-combustible Aluminium Battens*

1. **Introduction**
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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
Locations: Sydney | Melbourne | Brisbane | Perth
Phone: 1300 945 123
Email: sales@bluechipgroup.net.au

***Please Note:** This document only covers ULTRAWOOD Battens and does not cover ULTRAWOOD Cladding Profiles. For relevant ULTRAWOOD Cladding information, please refer to the latest ULTRAWOOD Cladding Technical Manual and Install Details available here: ULTRAWOOD Non-combustible Timber Cladding

1.4 Product Description:

Non-Combustible Timber Battens
ULTRAWOOD non-combustible timber battens are available in a range of solid aluminium profiles providing a reliable and attractive modern facade alternative to other commercial cladding products. ULTRAWOOD battens have been specifically designed by experienced commercial facade professionals to meet the demands of today's facade industry. Australian made using the finest raw materials and finish options, ULTRAWOOD battens can be secret-fixed and offer an unprecedented level of quality, safety, and longevity with an extensive range of matt-finish realistic timber colours, available in both standard and custom sizes.

AS 1530.1 Non-Combustible
ULTRAWOOD products are made of 100% solid aluminium which is totally non-combustible to AS 1530.1. Architects, engineers, and tenants can be assured ULTRAWOOD will not burn or contribute to fire spread.

2-Peice Installation
The ULTRAWOOD batten profiles have been intelligently designed to provide excellent usability such as a simple 2-peice clip-together mounting system with inbuilt screw flutes for secret fixing and structural integrity.

Prefinished System
The entire ULTRAWOOD range is pre-finished. This means there is no requirement for painting or onsite finishing. Our finish options are both attractive and durable, providing a protective coating over time.

100% Australian Made
ULTRAWOOD is a 100% Australian owned and made product, which contributes to it's quality and fast lead times. Using ULTRAWOOD aids all aspects of the Australian economy

Environmentally Sustainable
ULTRAWOOD solid aluminium is a 100% recyclable product. Energy, emissions, wastage and materials are saved in every aspects of the product from manufacturing, to, delivery, installation and recycling.

Minimal Fabrication
ULTRAWOOD battens can be ordered to custom lengths which eliminates additional fabrication. The base clip is fixed to the main structure before the battens are simply interlocked together and the end-caps screwed into place.

Incredible Aesthetics
ULTRAWOOD battens come in 6 different sizes so architects can mix-and-match and use different lengths for infinite design possibilities. Add in a wide range of inspiring and realistic timber finishes and the design options are endless.

Custom Designs
Locally Australian made, ULTRAWOOD battens can be supplied in an almost infinite range of custom sizes, shapes and finishes. Contact us to discuss your unique vision for your next battens project.

1.5 More Information:
ULTRAWOOD Non-combustible Timber Battens

2.1 Physical Properties – Aluminium Extrusion:

ITEM	TEST STANDARD	UNIT	RESULT
Alloy Grade / Temper	Actual	-	6063 T5
Material Density	Actual	Kg/m3	2,709
Thermal Expansion	Actual	mm/m/°C	0.025

2.2 Physical Properties – Conditions of Finish:

- All items subject to 100-150mm wastage at each end.
- Finish, grain, colour tone and gloss level are subject to variation between profiles within batches and batches overall and may vary from samples provided.
- Internal corners may not have wood finish due to sharpness of the corner which may result in a lighter colour line. Recesses will have limited coverage.
- Finish and performance should be viewed with a comparison to natural timber in mind. Each profile will be unique; timber grain will never be perfect or consistent and minor imperfections such as slightly darker or lighter lines or blemishes in similar tone to the main finish are to be expected. Any other variance in finish not visible to the naked eye when inspected from 3m distance at 90 degrees to the material surface will be acceptable.

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 NCC 2022, clause C2D10(6)(e) making it compliant for use on external facades or internal walls on any building of types A, B & C construction, classes 2-9.

3.2 Fire Performance – 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
Non-combustible (DTS) – NCC 2022	NCC C2D10(6)(e)	CSIRO	Pass
Ignitability Index	AS 1530.3	AWTA	0
Spread of Flame Index	AS 1530.3	AWTA	0
Heat Evolved Index	AS 1530.3	AWTA	0
Smoke Developed Index	AS 1530.3	AWTA	0-1
Group Number	AS 5637	AWTA	1

3.3 Fire Performance – Standard Powder Coating 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
Non-combustible (DTS) – NCC 2022	NCC C2D10(6)(e)	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	AS 5637	AWTA	1

3.4 Fire Performance – Anodised Finish

Anodising is not a coating but rather a chemical reaction in the aluminium which makes it change colour. Accordingly, it is AS 1530.1 non-combustible and requires no further testing.

4.1 Installation:

ULTRAWOOD Battens can be installed either vertically in a wall or screen application or horizontally in a patio, suspended ceiling or soffit application. For secret fixing use the proprietary base clip which is fixed to the structure before clipping the batten into place, mating the two together. Alternatively use the proprietary U-channel which is fixed to the structure before installing the batten inside the U-channel and securing it with fixings through the side of the U-channel into the battens side walls. Proprietary end caps should be mechanically fixed to both ends of each batten using colour-matched screws. Structural fixings specification by others.

Installation Details:
The battens shall be fabricated and installed in accordance with the most recent version of the ULTRAWOOD Installation Details which are available online at www.bluechipgroup.net.au or by emailing sales@bluechipgroup.net.au or by calling **1300 945 123**. (Only PDF installation details are available online. For CAD/DWG installation details email or call as above).

4.2 Acceptable System Components:

Colour-matched Screws:
End caps shall be mechanically fixed with minimum of 2 x ULTRAFIX colour-matched screws per end cap supplied by Blue Chip Group Pty Ltd and screwed into the 2 x screw flutes at each end of each batten.

Fixings:
Fasteners, including concealed screws, nuts, bolts, and other items required for connecting aluminium to aluminium or aluminium to steel shall be in accordance with AS 3566.2 and of a type to suit its application and exposure conditions.

Dissimilar Materials:
Where two surfaces of dissimilar material come into contact, such surfaces shall be separated with a layer of PVC or Polyethylene tape, or powder-coat finish as required to ensure against bimetallic corrosion.

4.3 General Fixing & Maintenance Instructions:

- ULTRAWOOD battens can be installed either horizontally or vertically.
- ULTRAWOOD battens should be acclimatized as required onsite to ensure temperature equilibrium with the surrounding environment prior to installation.

4.3 General Fixing & Maintenance Instructions (Continued):

- ULTRAWOOD wood-look 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 batten profiles before starting with the installation to ensure satisfactory appearance.
- ULTRAWOOD battens should be at ambient temperature prior to cutting or installation.
- All ULTRAWOOD battens 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.
- ULTRAWOOD battens 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. Test any proposed blade first for acceptable results before mass cutting.
- The ULTRAWOOD battens shall be installed with a minimum 10mm spacing between all trims, joints, butt joins, end stops and between any permanent structure and/or penetration to allow for thermal expansion and contraction.
- The sub-frame or structure shall be level and aligned and installed perpendicular to proposed battens direction at maximum centres to achieve site specific engineering requirements in accordance with the structural span tables contained in this manual.
- The ULTRAWOOD batten end caps shall be mechanically fixed with a minimum 2 x ULTRAFIX screws by inserting screws through the end cap and screwing into the extruded screw flutes at both ends of each batten. Drivers should be adjusted to a low or medium torque and screws should not be overdriven.
- The battens shall be installed as per the latest version of the ULTRAWOOD Battens Install Details allowing for any site-specific expansion and contraction requirements.
- The battens shall be installed as per the latest version of the ULTRAWOOD Battens Draft Specification allowing for any site-specific requirements to ensure the desired long-term performance and aesthetics are achieved.
- The battens 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 project.
- ULTRAWOOD use is limited to non-cyclonic wind categories (N1-N6) 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.
- The cladding shall be cleaned and maintained in accordance with AAMA 609 & 610-09 as required to avoid any accumulation of surface contaminants and to maintain the desired performance and appearance.