

## SPECIFICATION TEMPLATE

ULTRABOND FR Fire Resistant Aluminium Composite Panel

### 1. SCOPE OF WORK

The scope of work includes the design, supply, fabrication, and installation ULTRABOND FR Aluminium Cladding System, complete with all necessary sub-structures, anchors, hardware and fittings to provide a total installation and cladding system from the structure out.

### 2. MATERIAL AND FINISHES

#### Cladding Material:

Aluminium cladding material shall be supplied by Blue Chip Group Pty Ltd (Ph: 1300 945 123) comprising of a 4mm thick fire-resistant panel with a 0.5mm face skin and a 0.5mm rear skin of aluminium sandwiching a minimum 70% mineral infilled FR core;

- ULTRABOND FR; 4mm, with minimum 3003 H24 aluminium alloy skins.

**\*\*NO ALTERNATIVE MATERIALS WILL BE ACCEPTED FOR THIS PROJECT\*\***

#### Colour Selection:

Refer to exterior finishes schedule.

(Select colour code/s from the Finishes tab at the below link)

<http://www.bluechipgroup.net.au/facade-cladding-perth/aluminium-composite-panel-perth>

#### Fire Properties:

Manufactured by Blue Chip Group Pty Ltd; ULTRABOND FR is a Fire-resistant Aluminium Composite Panel tested to relevant Australian standards for type C construction.

ULTRABOND FR			
TEST STANDARD	RESULT		
AS 1530.3	PASS	Ignitability Index	0
	PASS	Heat Evolved	0
	PASS	Spread of Flame	0
	PASS	Smoke Developed	0-1
AS 5113 Full Scale Façade Test	PASS's all criteria except the debris clause* (The BCA does not require this test for type C construction)		

\*Aluminium melts at just over 660°C which is why all aluminium type panels fail the debris clause.

#### Applied Finish:

The external panel surface shall be factory prefinished by the manufacturer with a Fluoropolymer coating of either PVDF or FEVE or combination of both applied through a continuous coil coating process. The coated surface shall meet or exceed the minimum requirements of: AAMA 2605 -11 "Voluntary Specifications, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminium Extrusions and Panels" or EN13523 "Coil Coated Metals – Test Methods" Application of the Fluoropolymer coating system by means of spray coating before or after forming and shaping of the cladding elements shall not be permitted.

#### Protective Peel Off Foil:

The finished surface shall be factory protected with a self-adhesive UV stabilised peel-off foil to protect the applied finish during fabrication, delivery and installation processes and shall not be removed until panels have been installed.



### 3. FABRICATION

#### Technical Manual:

The panels shall be fabricated and installed in accordance with the most recent version of the ULTRABOND FR Technical Manual which is available online at [www.bluechipgroup.net.au](http://www.bluechipgroup.net.au) or by emailing [sales@bluechipgroup.net.au](mailto:sales@bluechipgroup.net.au) or by calling **1300 945 123**.

#### Shop Drawings:

Prior to the commencement of fabrication, the approved fabricator shall supply shop drawings for approval. Shop drawings shall indicate all panel and joint layouts and include sectional details.

#### Stiffeners:

If stiffening of the panel is required, a minimum 38 x 19 x 3mm RHS stiffener shall be bonded to the reverse side of the panel using double-sided tape such as TESA 7044 ACXplus. Application shall be in strict conformity with the manufacturer's specification and recommendations. The ends of the stiffener shall be mechanically fastened to the panel sub-frame.

#### Aluminium Z-angle Profiles:

Shall be ULTRAZED extruded aluminium alloy AA 6063-T5 supplied by Blue Chip Group Pty Ltd. The long z-angle shall be powder-coated to avoid bimetallic corrosion with the top-hats.

#### 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.

Class 1/2:	Internal applications.
Class 3:	External applications, moderate industrial and marine applications.
Class 4:	Severe marine applications

Pop rivets used for fastening cassette return legs to aluminium ULTRAZED support profiles shall be aluminium and of suitable size for the use intended. All fixing anchors, brackets and similar attachments used in the erections, shall be of aluminium, non-magnetic stainless steel, zinc coated steel, or hot dip zinc galvanised steel.

#### 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.

#### Factory Fabrication:

All cladding panels shall be factory fabricated and assembled in compliance with the manufacturer's Data Sheets and to the best standard of workmanship under experienced factory supervision and control. All panels shall be cut and routed using CNC equipment and tools recommended and approved by the panel manufacturer. After folding into cassettes, the extruded aluminium ULTRAZED profile shall be fixed to the minimum 20mm deep return bend using 5mm dia. aluminium pop rivets. Rivets shall be properly positioned not less than 10mm from the edge of the panel and the distance between rivets shall not exceed 500mm.

#### Weep Holes:

Weep holes shall be provided into soffit panels that abut external vertical building faces, including glazing. Weep holes shall also be provided to Fascia panels which include soffit returns. Unless indicated otherwise, the size and location of such weep holes will be at fabricators discretion.

### Panel Marking:

Each panel shall be marked on the reverse side for easy identification of panel size and location. Under no circumstances should any self-adhesive labels, tapes or marker pens be applied to the applied finish or to the protective peel off film.

### Warranty:

ULTRABOND FR shall be covered by a manufacturer's warranty for a minimum period of 10 years. All work to be carried out in accordance with the manufacturer's recommendations and installation details. The warranty is subject to the cladding system being fabricated and installed by a manufacturer trained and approved installer with a minimum 5 years' experience.

## 4. INSTALLATION

### Installation Details:

The panels shall be fabricated and installed in accordance with the most recent version of the ULTRABOND FR Installation Details which are available online at [www.bluechipgroup.net.au](http://www.bluechipgroup.net.au) or by emailing [sales@bluechipgroup.net.au](mailto: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).

### General Guidelines:

Panels shall be stored on site in vertical position, face-to-face resp. back-to-back, with adequate protection to prevent scratches and dents. Any component parts which are observed to be defective in any way, including warped, bowed, dented, abraded and broken members must not be installed. No cutting, trimming, welding or brazing of any component parts during erection, in any manner which would damage the finish, decrease the strength or result in a visual imperfection or failure in performance shall be executed during erection. Component parts which require alteration shall be returned to shop for fabrication, if necessary replaced with new parts. All component parts shall be installed level, true to line with uniform joints and reveals.

## 5. SYSTEM COMPONENTS

### Insulated Façade System - OPTIONAL:

For an optional exterior insulated façade system use BICEP façade brackets and horizontal / vertical support profiles along with IROCK non-combustible insulation to achieve an engineered exterior insulation zone. For type C construction projects, IBOARD Rigid PIR insulation can be used if preferred.



### Aluminium Z-angle Profiles:

Shall be ULTRAZED extruded aluminium alloy AA 6063-T5 supplied by Blue Chip Group Pty Ltd. The long z-angle shall be powder-coated to avoid bimetallic corrosion with the top-hats.



**Sarking:**

In climate zones 1-3, sarking shall be FIRESpan DTS non-combustible vapour barrier and in climate zones 4-8, sarking shall be FIRESpan Class 4 vapour permeable membrane, as per the requirements of NCC 2022 clause F8D3. Install and tape sarking in accordance with AS 4200.2 behind all cladding areas for DTS weatherproofing compliance as per NCC 2022 clause F3D3.



**Sub-framing System:**

The sub-framing system shall be STUdTEK steel top-hats attached to the main structure (or BICEP Façade System) 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 for any given project. Top-hat centres shall be maximum 600mm or installed in a matrix layout to provide full perimeter support to each panel as required to adequately support the cladding system.



**Panel Joint Sealant:**

Panel joints to be sealed with PROLASTIK matt NC silicone sealant supplied by Blue Chip Group Pty Ltd and installed over closed cell foam backing rod to manufacturer's specifications.



**Stiffeners:**

As a minimum, the stiffeners shall be ULTRASTIFF 38 x 19 x 3mm RHS (rectangle hollow section) extruded aluminium alloy AA 6063-T5 supplied by Blue Chip Group Pty Ltd. The stiffeners are to be fixed to the back of the ULTRABOND FR panel using two continuous strips of 12mm wide TESA 7044 ACXplus double-sided tape and a suitable structural adhesive. All stiffeners shall be mechanically fixed to the cassette-fix panel returns at each end in accordance with the manufacturer's install details. Tapes should be applied in accordance with all tape manufacturer's guidelines for preparation and application.

