

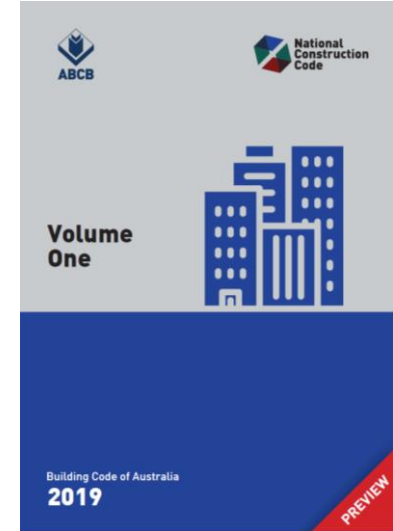


We've Got It Covered

## ULTRACORE IQ

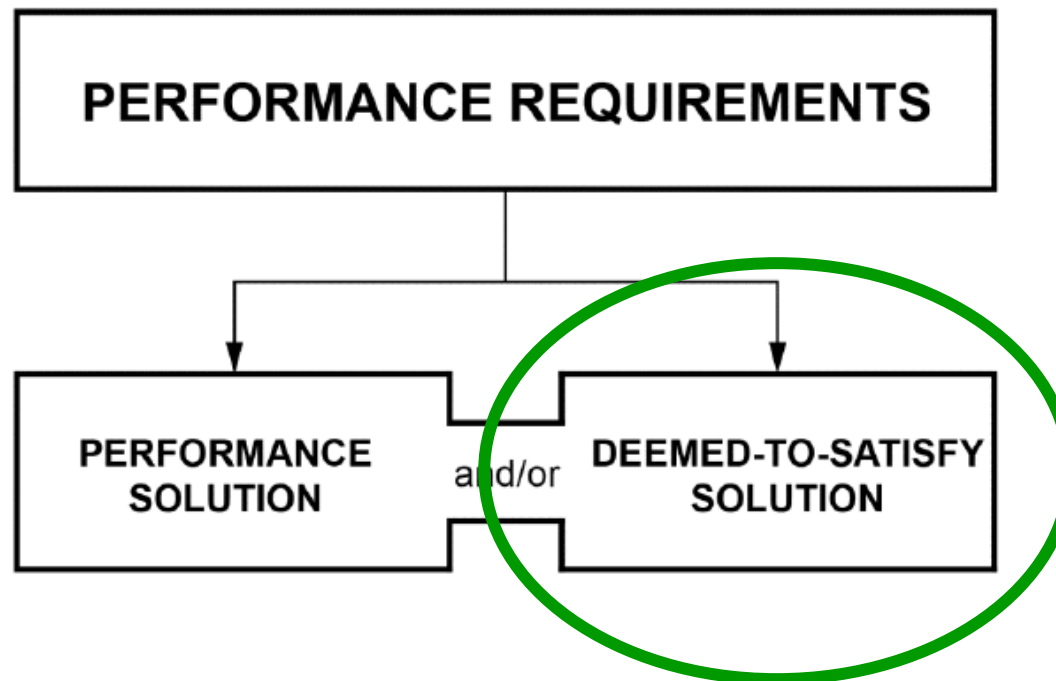
Deemed-to-Satisfy Non-combustible Aluminium Core Panel  
NCC 2019 C1.9(e)(vii) Compliance & Testing

ULTRACORE  
IQ



# Deemed-to-Satisfy Pathway in NCC 2019

1. Deemed-to-Satisfy Solution (Clause C1.9)
2. Performance Solution (CV3 Verification Method)



# Deemed-to-Satisfy Cladding (Clause C1.9)

Clause C1.9 requires external cladding and walls to comply with the Deemed-to-Satisfy (DTS) requirements of NCC 2019 – Specifically that all components of External Walls and Common Walls including the cladding, framing & insulation are non-combustible for type A & B construction.

## C1.9 Non-combustible building elements

- (a) In a building *required* to be of Type A or B construction, the following building elements and their components must be *non-combustible*:
  - (i) *External walls* and *common walls*, including all components incorporated in them including the facade covering, framing and insulation.

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# Basic Table of Construction Types

**Class 2, 3 & 9 Buildings:** Units, Apartments, Motels, Schools, Health & Aged Care, Assembly Areas

**Class 5, 6, 7 & 8 Buildings:** Offices, Retail Buildings, Shops, Carparks, Warehouses, Laboratories, Factories

Rise in Stories	Class 2, 3 or 9 Building	Class 5, 6, 7 or 8 Building	Class 1 or 10 Building
4 or more	A*	A*	n/a
3	A*	B*	n/a
2	B*	C**	n/a
1	C**	C**	n/a

\*All Type A & B Construction Requires all External Cladding to be Non-combustible as per Clause C1.9

\*\*May also be Type A or B Construction based on Compartment Size as per C2.2 & C2.3

# Materials Exempted in Clause C1.9(d)

This means the below products do not need to be non-combustible when using a Deemed-to-Satisfy cladding system for type **A & B construction**.

- (d) The requirements of (a) and (b) do not apply to the following:
- (i) Gaskets.
  - (ii) Caulking.
  - (iii) Sealants.
  - (iv) Termite management systems
  - (v) Glass, including laminated glass.
  - (vi) Thermal breaks associated with glazing systems.
  - (vii) Damp-proof courses.



# Non-combustible Materials in Clause C1.9(e)

- (e) The following materials may be used wherever a *non-combustible* material is *required*:
- (i) Plasterboard.
  - (ii) Perforated gypsum lath with a normal paper finish.
  - (iii) Fibrous-plaster sheet.
  - (iv) Fibre-reinforced cement sheeting.
  - (v) Pre-finished metal sheeting having a *combustible* surface finish not exceeding 1 mm thickness and where the *Spread-of-Flame Index* of the product is not greater than 0.
  - (vi) *Sarking-type materials* that do not exceed 1 mm in thickness and have a *Flammability Index* not greater than 5.
  - (vii) Bonded laminated materials where—
    - (A) each lamina, including any core, is *non-combustible*; and
    - (B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and
    - (C) the *Spread-of-Flame Index* and the *Smoke-Developed Index* of the bonded laminated material as a whole do not exceed 0 and 3 respectively.

## Bonded Laminates Clause C1.9(e)(vii)

After careful consideration & review of all the evidence, the Australian Building Codes Board (ABCB) has retained this clause in NCC 2019 unchanged from Amendment 1 in NCC 2016 – changes highlighted.

### Clause C1.9(e)(vii) for Bonded Laminated Materials in NCC 2019

(vii) Bonded laminated materials where—

- (A) each lamina, including any core, is *non-combustible*; and
- (B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and
- (C) the *Spread-of-Flame Index* and the *Smoke-Developed Index* of the bonded laminated material as a whole do not exceed 0 and 3 respectively.

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# Test Certificates used to Confirm C1.9 Compliance

- AS 1530.1
- AS 1530.3
- NATA Accredited
- AS 1530.2 for Sarking



### Certificate of Test

Quote No.: NK7601 REPORT No.: FNC11679

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

TRADE NAME: Ultracore G2

SPONSOR: Blue Chip Group  
62 Division Street  
Welshpool WA  
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as the corrugated profiled aluminium core of the Ultracore G2 aluminium composite sandwich panel.

Nominal thickness: 0.3-mm to 0.5-mm  
Nominal mass: 4 kg/m<sup>2</sup> (measured); 4.564 kg/m<sup>2</sup> (specified by sponsor)  
Colour: silver

TEST PROCEDURE: Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials.  
An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

RESULTS:

Mean furnace thermocouple temperature rise.....	11.0°C
Mean specimen centre thermocouple temperature rise.....	14.2°C
Mean specimen surface thermocouple temperature rise.....	5.4°C
Mean duration of sustained flaming.....	0 seconds
Mean mass loss.....	0.09 %

DESIGNATION: The material is NOT deemed COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS 1530.1-1994.

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

DATE OF TEST: 3 September 2015 TEST NUMBER: 11476  
Issued on the 4<sup>th</sup> day of April 2016 without alterations or additions.

*Heherson Alarde*  
Heherson Alarde  
Testing Officer

*B. Roddy*  
Brett Roddy  
Team Leader, Fire Testing and Assessments

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NATA Accredited Laboratory  
 Number: 165  
 Corporate Site No 3625  
 Accredited for compliance with ISO/IEC 17025.

CSIRO INFRASTRUCTURE TECHNOLOGIES

14 Julius Avenue, Riverside Corporate Park, North Ryde NSW 2113 AUSTRALIA  
Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 5555 www.csiro.au

### Certificate of Test

Quote No.: NZ7601 REPORT No.: FNE11680

AS/NZS 1530.3:1999 SIMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE

TRADE NAME: Ultracore G2

SPONSOR: Blue Chip Group  
62 Division Street  
Welshpool WA  
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as an aluminium composite sandwich decorative panel comprised of the following layers:  
Layer 1: 0.7-mm thick aluminium face finished with 30-µm thick surface finish;  
Layer 2: 0.1-mm thick adhesive film;  
Layer 3: 0.3-mm thick corrugated profiled aluminium core, expanded to 2.6-mm;  
Layer 4: 0.1-mm thick adhesive film;  
Layer 5: 0.5-mm thick aluminium face finished with 10-µm thick surface finish.  
The layers were adhered together using an adhesive film glue at an application rate of 96 g/m<sup>2</sup>.  
Nominal total thickness: 4 mm  
Nominal total mass: 3.7 kg/m<sup>2</sup> (measured); 4.564 kg/m<sup>2</sup> (specified by sponsor)  
Colour: silver (exposed face coating)

TEST PROCEDURE: Six samples were tested in accordance with Australian Standard 1530, Method for fire tests on building components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test, each sample was clamped to the specimen holder in four places.

RESULTS: The following means and standard errors were obtained:

Parameter	Mean	Standard Error
Ignition Time (min)	N/A	N/A
Flame Spread Time (s)	N/A	N/A
Heat Release Integral (kJ/m <sup>2</sup> )	N/A	N/A
Smoke Release (log <sub>10</sub> D)	-2.075	0.147

For regulatory purposes these figures correspond to the following indices:

Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
0	0	0	1

The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

DATE OF TEST: 12 August 2015 TEST NUMBER: 11459  
Issued on the 4<sup>th</sup> day of April 2016 without alterations or additions.

*Heherson Alarde*  
Heherson Alarde  
Testing Officer

*B. Roddy*  
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# AS 1530.1 Test for Material Combustibility is Required for DTS Compliance with C1.9(e)(vii)(A)

- AS 1530.1
- Combustibility test
- Each lamina must PASS
- Including the core



Certificate of Test	
Quote No.: NK7601	REPORT No.: FHC11679
COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994	
TRADE NAME:	Ultracore G2
SPONSOR:	Blue Chip Group 62 Division Street Welshpool WA AUSTRALIA
DESCRIPTION OF TEST SAMPLE:	The sponsor described the tested specimen as the corrugated profiled aluminium core of the Ultracore G2 aluminium composite sandwich panel. Nominal thickness: 0.3-mm to 0.5-mm Nominal mass: 4 kg/m <sup>2</sup> (measured); 4.564 kg/m <sup>2</sup> (specified by sponsor) Colour: silver
TEST PROCEDURE:	Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials. An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.
RESULTS:	Mean furnace thermocouple temperature rise..... 11.0°C Mean specimen centre thermocouple temperature rise .....14.2°C Mean specimen surface thermocouple temperature rise ..... 5.4°C Mean duration of sustained flaming.....0 seconds Mean mass loss.....0.09 %
DESIGNATION:	The material is NOT deemed COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS 1530.1-1994.
These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.	
DATE OF TEST: 3 September 2015	TEST NUMBER: 11476
Issued on the 4 <sup>th</sup> day of April 2016 without alterations or additions.	
 Heherson Alarde Testing Officer	 Brett Roddy Team Leader, Fire Testing and Assessments
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NATA Accredited Laboratory Number: 185 Corporate Site No 3625 Accredited for compliance with ISO/IEC 17025.	
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# Understanding AS 1530.1

AS 1530.1 is referenced in the NCC 2019 definitions as the test method for material combustibility. It is an extremely severe test and **NO material which passes AS 1530.1 has ever been shown to contribute to Spread-of-Fire.**

The sample format required for AS 1530.1 testing is a cylinder, 45mm in diameter and 50mm high. **For thin sheets it is built up using several layers.**



**Non-combustible** means—

(a) applied to a material — not deemed *combustible* as determined by AS 1530.1

NCC 2019 Definitions – Page 654

# Passing AS 1530.1 Testing

The severity and strict criteria means that any product with **any organic material will fail**.

The testing procedure involves enclosing the specimen in a wire cage and then lowering it into a furnace at **750°C for 30 minutes**.

A product is deemed COMBUSTIBLE (fails) if the samples **flame for more than 5 seconds** or the **temperature rise in 30 minutes exceeds 50°C**.





# ULTRACORE IQ – AS 1530.1

ULTRACORE IQ Aluminium Core Panel has been tested to AS 1530.1 by NATA accredited CSIRO and the laminas did not flame or increase the temperature by more than 50°C = PASS.

Accordingly, the ULTRACORE IQ laminas, including the core, were not deemed **COMBUSTIBLE** as per criteria (A), for a bonded laminated material to be DTS non-combustible as per C1.9(e)(vii).



# NATA Assessment to Confirm Adhesive Thickness as per C1.9(e)(vii)(B) is Recommended

- NATA Assessment
- To confirm glue thickness
- Max. 1mm per layer
- Max. 2mm total



**Certificate of Test**

Quote No.: NZ7601 REPORT No.: FNE11680

AS/NZS 1530.3:1999 SIMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE

TRADE NAME: Ultracore G2  
SPONSOR: Blue Chip Group  
62 Division Street  
Welshpool WA  
AUSTRALIA

DESCRIPTION OF SAMPLE: The sponsor described the tested specimen as an aluminium composite sandwich decorative panel comprised of the following layers:  
Layer 1: 0.7-mm thick aluminium face finished with 30-µm thick surface finish;  
Layer 2: 0.1-mm thick adhesive film;  
Layer 3: 0.3-mm thick corrugated profiled aluminium core, expanded to 2.6-mm;  
Layer 4: 0.1-mm thick adhesive film;  
Layer 5: 0.5-mm thick aluminium face finished with 10-µm thick surface finish.  
The layers were adhered together using an adhesive film glue at an application rate of 96 g/m².  
Nominal total thickness: 4 mm  
Nominal total mass: 3.7 kg/m² (measured); 4.564 kg/m² (specified by sponsor)  
Colour: silver (exposed face coating)

TEST PROCEDURE: Six samples were tested in accordance with Australian Standard 1530, Method for fire tests on building components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test, each sample was clamped to the specimen holder in four places.

RESULTS: The following means and standard errors were obtained:

Parameter	Mean	Standard Error
Ignition Time (min)	N/A	N/A
Flame Spread Time (s)	N/A	N/A
Heat Release Integral (kJ/m²)	N/A	N/A
Smoke Release (log₁₀D)	-2.075	0.147

For regulatory purposes these figures correspond to the following indices:

Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
0	0	0	1

The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

DATE OF TEST: 12 August 2015 TEST NUMBER: 11459

Issued on the 4th day of April 2016 without alterations or additions.

*H. Alarde*  
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ULTRACORE IQ Aluminium Core Panel glue is applied as 0.1mm dry-film layers so there is no way it can be thicker than stated. It is 10% (1/10<sup>th</sup>) of the NCC 2019 allowance.

Certificate of Test	
Quote No.: NZ7601	REPORT No.: FNE11680
AS/NZS 1530.3:1999 SIMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE	
TRADE NAME:	Ultracore G2
SPONSOR:	Blue Chip Group 62 Division Street Welshpool WA AUSTRALIA
DESCRIPTION OF SAMPLE:	<p>The sponsor described the tested specimen as an aluminium composite sandwich decorative panel comprised of the following layers:</p> <p>Layer 1: 0.7-mm thick aluminium face finished with 30-µm thick surface finish; Layer 2: 0.1-mm thick adhesive film; Layer 3: 0.3-mm thick corrugated profiled aluminium core, expanded to 2.6-mm; Layer 4: 0.1-mm thick adhesive film; Layer 5: 0.5-mm thick aluminium face finished with 10-µm thick surface finish.</p> <p>The layers were adhered together using an adhesive film glue at an application rate of 96 g/m<sup>2</sup>.</p> <p>Nominal total thickness: 4 mm</p> <p>Nominal total mass: 3.7 kg/m<sup>2</sup> (measured); 4.564 kg/m<sup>2</sup> (specified by sponsor) Colour: silver (exposed face coating)</p>

The sponsor described the tested specimen as an aluminium composite sandwich decorative panel comprised of the following layers:

Layer 1: 0.7-mm thick aluminium face finished with 30-µm thick surface finish;  
Layer 2: 0.1-mm thick adhesive film;  
Layer 3: 0.3-mm thick corrugated profiled aluminium core, expanded to 2.6-mm;  
Layer 4: 0.1-mm thick adhesive film;  
Layer 5: 0.5-mm thick aluminium face finished with 10-µm thick surface finish.

The layers were adhered together using an adhesive film glue at an application rate of 96 g/m<sup>2</sup>.

**ULTRACORE IQ**

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# AS 1530.3 Test for Fire Hazard Properties is Required for DTS Compliance with C1.9(e)(vii)(C)

- AS 1530.3
- Fire Hazard Properties
- 0 for Spread-of-Flame
- 3 for Smoke-Developed



**Certificate of Test**

Quote No.: NZ7601      REPORT No.: FNE11680

AS/NZS 1530.3:1999 SIMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE

TRADE NAME: Ultracore G2  
SPONSOR: Blue Chip Group  
62 Division Street  
Welshpool WA  
AUSTRALIA

DESCRIPTION OF SAMPLE: The sponsor described the tested specimen as an aluminium composite sandwich decorative panel comprised of the following layers:  
Layer 1: 0.7-mm thick aluminium face finished with 30-µm thick surface finish;  
Layer 2: 0.1-mm thick adhesive film;  
Layer 3: 0.3-mm thick corrugated profiled aluminium core, expanded to 2.6-mm;  
Layer 4: 0.1-mm thick adhesive film;  
Layer 5: 0.5-mm thick aluminium face finished with 10-µm thick surface finish.  
The layers were adhered together using an adhesive film glue at an application rate of 96 g/m².  
Nominal total thickness: 4 mm  
Nominal total mass: 3.7 kg/m² (measured); 4.564 kg/m² (specified by sponsor)  
Colour: silver (exposed face coating)

TEST PROCEDURE: Six samples were tested in accordance with Australian Standard 1530, Method for fire tests on building components and structures, Part 5: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test, each sample was clamped to the specimen holder in four places.

RESULTS: The following means and standard errors were obtained:

Parameter	Mean	Standard Error
Ignition Time (min)	N/A	N/A
Flame Spread Time (s)	N/A	N/A
Heat Release Integral (kJ/m²)	N/A	N/A
Smoke Release (log <sub>10</sub> D)	-2.075	0.147

For regulatory purposes these figures correspond to the following indices:

Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
0	0	0	1

The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

DATE OF TEST: 12 August 2015      TEST NUMBER: 11459  
Issued on the 4<sup>th</sup> day of April 2016 without alterations or additions.

*Heherson Alarde*  
Heherson Alarde  
Testing Officer

*Brett Roddy*  
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Team Leader, Fire Testing and Assessments

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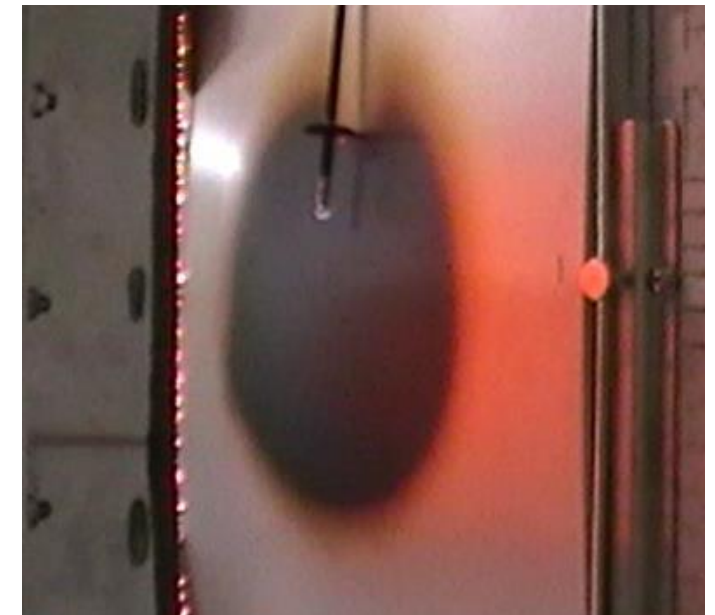
# ULTRACORE IQ - AS 1530.3 Test

As per the requirements of NCC 2019, this test involves the bonded laminate material as a whole being tested to AS 1530.3. Finished samples are mounted vertically in front of a radiant heat source to simultaneously determine;

- Ignitability Index = 0
- Spread-of-Flame Index = 0
- Heat Evolved Index = 0
- Smoke-Developed Index = 1



Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
0	0	0	1



# ULTRACORE IQ Results Table as per C1.9(e)(vii)

## ULTRACORE IQ Intelligent Non-combustible Aluminium Core Panel

TEST	RESULT	
AS 1530.1*	Not deemed COMBUSTIBLE	
NATA Assessment**	Adhesive per Layer	0.1mm
	Total Adhesive	0.2mm
AS 1530.3***	Spread-of-Flame	0
	Smoke-Developed	1



\*Refer CSIRO AS 1530.1 Certificate #: FNC11679

\*\*Refer CSIRO Assessment Number #: FCO-3188

\*\*\*Refer CSIRO AS 1530.3 Certificate #: FNE11680



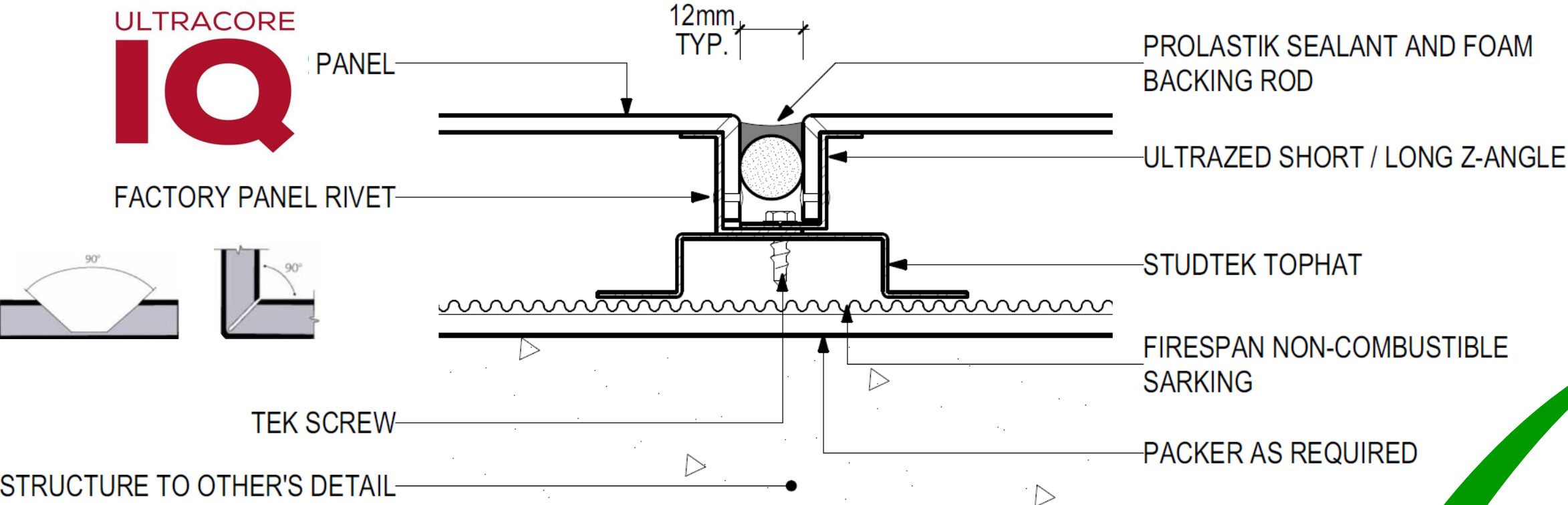
# Benefits of Deemed-to-Satisfy Cladding

- DTS solutions are 'Black & White' in the code
- This avoids the risk of liability to certifiers, fire engineers and architects
- DTS products have a category D insurance rating (the lowest risk)
- They avoid any difference of opinion or dispute
- **They are much more likely to be covered by your own PI insurance**
- They do not have onerous requirements to be installed exactly as tested in order to be compliant

*"If the LACROSSE cladding was DTS compliant then the fire would never have spread so rapidly like it did. Furthermore the architect, fire engineer, certifier and builder would have been absolved of liability"*

# ULTRACORE IQ – DTS Non-combustible System

## Mechanical Cassette Fixing (V-groove Route & Return)




## 1. CNC the V-grooves 2. Fold Returns 3. Fix Z-angles 4. Install Panels 5. Seal Joints 6. Peel Film





# Tape Fix – Not Compliant or Recommended

## Adhesive Tape-fix System (Flat Stick Method as per Lacrosse)



Fire Safety

**Post Incident Analysis Report**

*"Reducing the Incidence and Impact of fire in the community"*

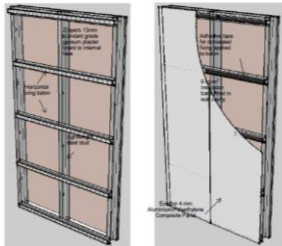
Lacrosse Docklands  
673-675 La Trobe Street, Docklands  
25 November 2014

MFB Building Complex  
458 Boundary Street  
Melbourne VIC 3121

The northern end of these balconies are bounded by 900mm concrete panels, which leaves the remaining 900mm balcony depth cantilevering out beyond the building face. A 1 metre high glazed balustrade is fitted to the remaining northern edge of the balconies and returns along the length of the eastern edge and butts into the southern wall.

In contrast to the northern end of these balconies, the walls at the southern end of the balconies extend out approximately 2.25 metres and some 450mm from the external face of the balconies.

These walls are built of lightweight steel stud construction. The internal face of the walls are lined with two layers of 13mm standard grade gypsum plasterboard, contain insulation batts, along with a combustible PVC stormwater downpipe and several combustible electrical television cabling and input face plates. The external face is lined with a firm aluminium polyethylene composite panel facade containing a polyethylene core.

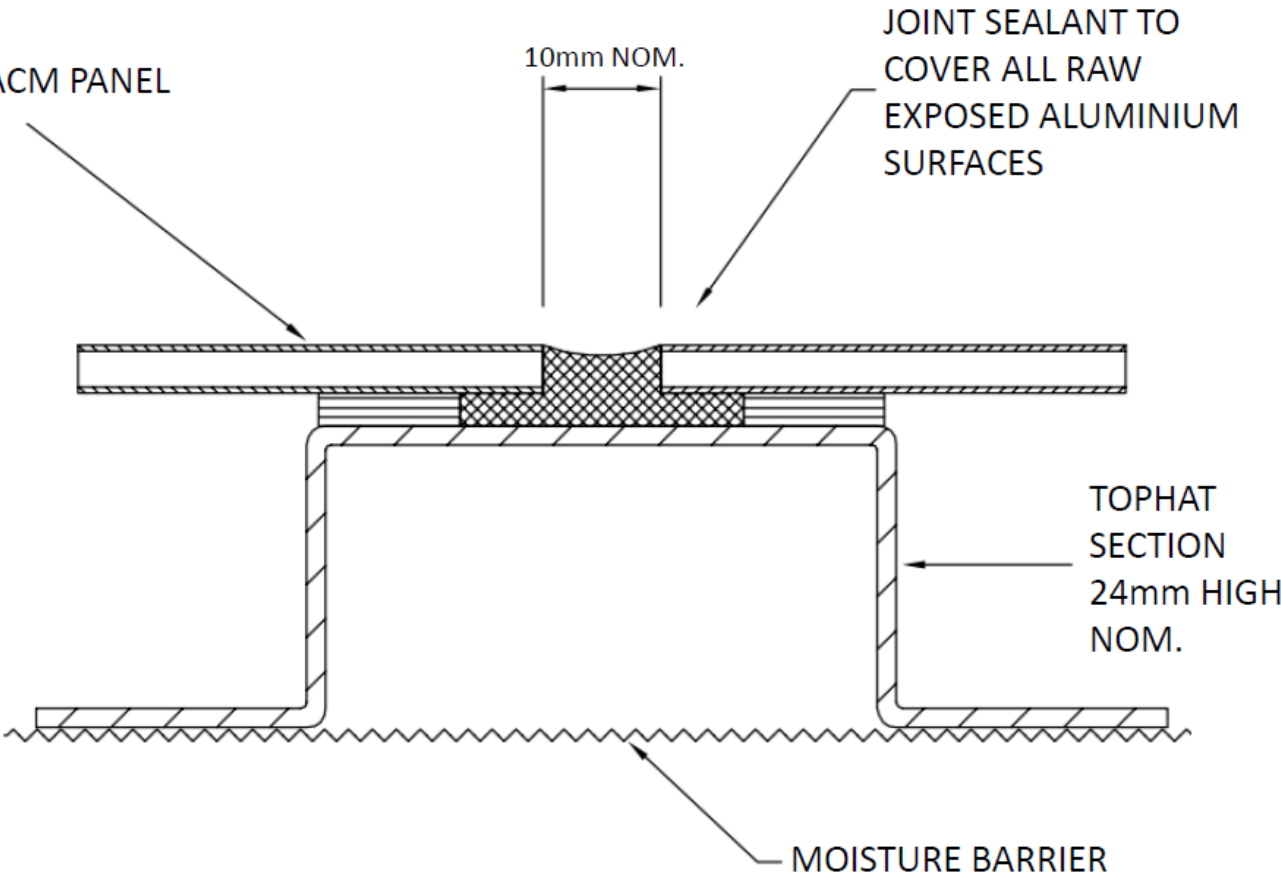


Figures 9 - Aluminium/Polyethylene Composite Panel Facade - External Wall Cladding

MFB Fire Investigators removed a large sample of the aluminium/polyethylene composite panel facade, fitted to the southern end of the balconies, for further investigation. The removed section of panel contained manufacturer labelling and serial identification on the internal face indicating the following:

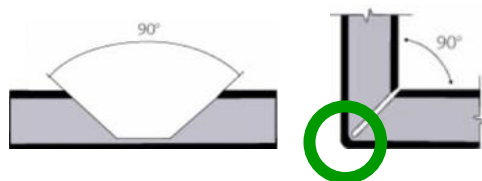
'ALUCOBEST 11060157 HY 103 4mm 201106/17 20 51 45'

SheetNumber: 4 10060157 Page: 62 of 124



# Intelligent Non-combustible Core Panel

- DTS compliant for types A, B & C construction
- Category D insurance rating (lowest risk)
- All waste and cladding materials is 100% recyclable (NO landfill)
- 4kg/m<sup>2</sup> total panel weight
- Low thermal conductivity
- Low debris quantity
- High lamination strength
- No risk of score-fractures when v-grooved

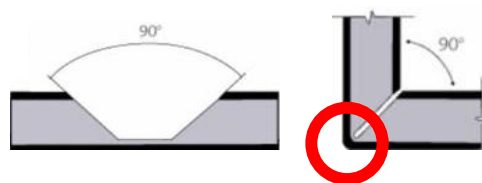
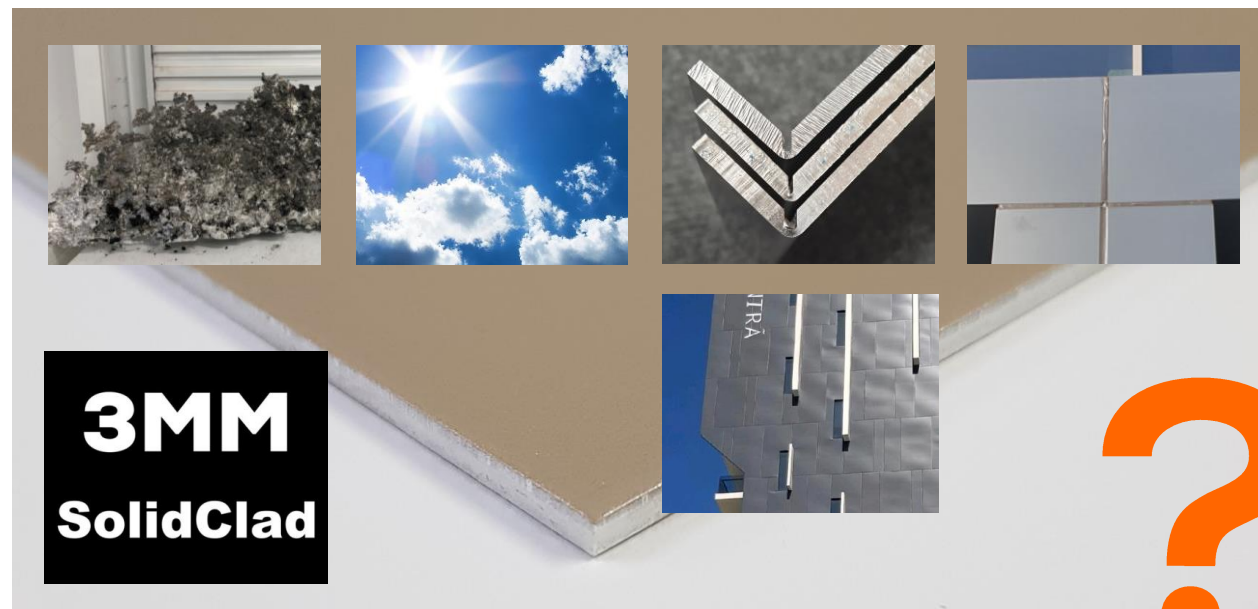




# Non-combustible Solid Aluminium Panel

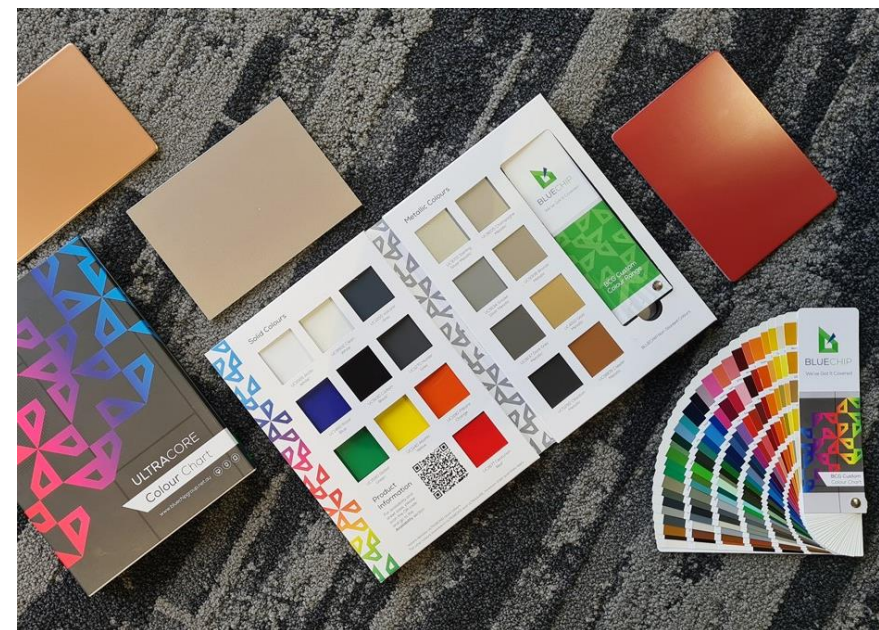
**3MM**  
**SolidClad**

- DTS compliant for types A, B & C construction
- Category D insurance rating (lowest risk)
- All waste and cladding materials is 100% recyclable
- 8kg/m<sup>2</sup> total panel weight
- High thermal conductivity
- High debris quantity
- Inherent oil-canning issues
- High risk of score-fractures when v-grooved



# ULTRACORE IQ Key Benefits

- All the general aluminium panel benefits including curved panels
- AS 5113 testing to prove superior 'real-world' fire safety and NO fire spread
- 80 x lower thermal conductivity for greater fire safety and section J compliance\*
- 1/3 the amount of debris in a fire scenario\*
- Proven durability in the cassette-fix system\*
- Concealed fixings with seamless corners/parapets\*
- Much greater resistance to oil canning\*
- Much faster to fabricate = \$\$\$ cost savings\*
- 50% less weight for structural & labour savings\*
- 50% less carbon footprint\*
- **Much lower MOQ for unlimited custom colours\***



*\*Compared to Solid Aluminium panels*



**PROJECT:**

Elizabeth Quay, The Towers

**ARCHITECT:**

Cottee Parker

**BUILDER:**

Probuild Constructions

**PRODUCT:**

ULTRACORE

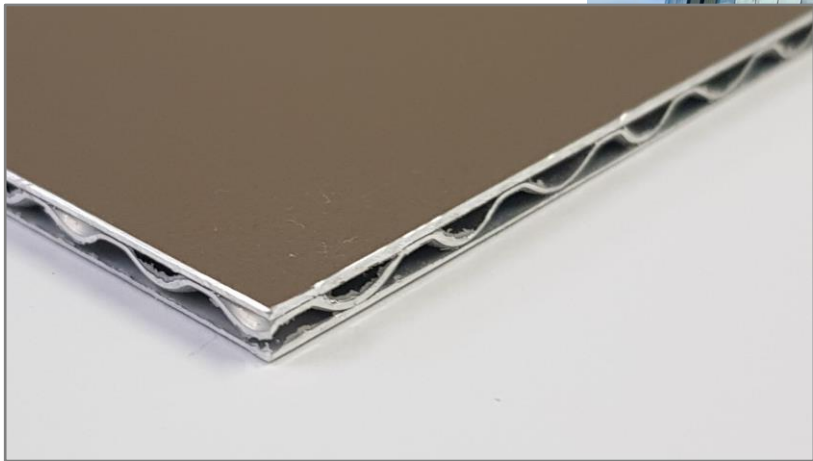
**FAÇADE M2:**

6,000m2

**COMPLIANCE PATHWAY:**

Deemed-to-Satisfy (DTS)

ULTRACORE  
**IQ**





**PROJECT:**

Kings Square, Fremantle

**ARCHITECT:**

Hassell

**BUILDER:**

Probuild Constructions

**PRODUCT:**

ULTRACORE

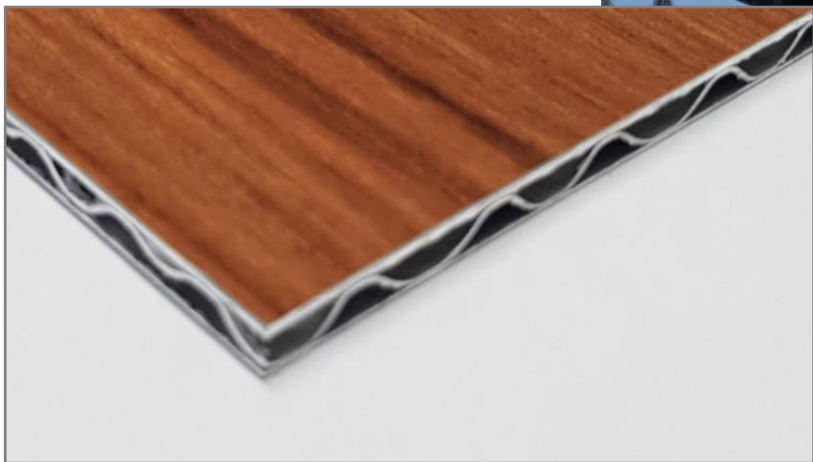
**FAÇADE M2:**

2,700m<sup>2</sup>

**COMPLIANCE PATHWAY:**

Deemed-to-Satisfy (DTS)

ULTRACORE  
**IQ**





**PROJECT:**  
Optus Stadium

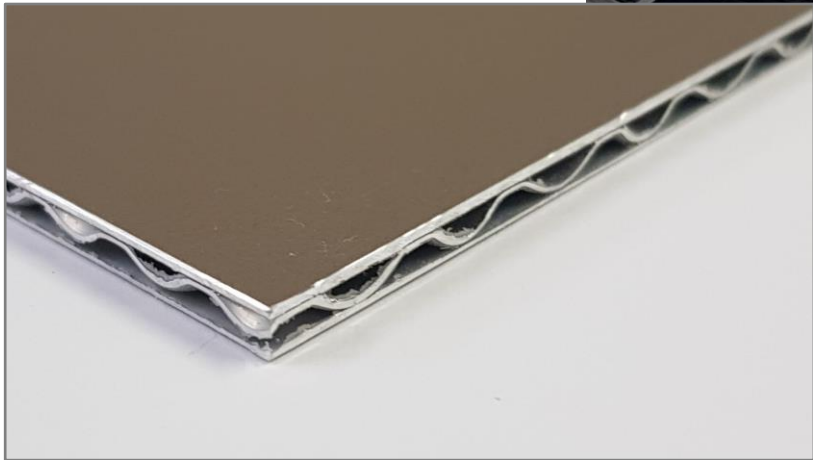
**ARCHITECT:**  
Hassell / Cox

**BUILDER:**  
Multiplex

**PRODUCT:**  
ULTRACORE

**FAÇADE M2:**  
4,000m2

**COMPLIANCE PATHWAY:**  
Deemed-to-Satisfy (DTS)





**CONCLUSION:** While we can supply all options including both DTS aluminium panels and a steel-skin panel for AS 5113 compliance, all the available testing & real-world evidence clearly shows that Aluminium Core panel offers the best outcomes across almost all key considerations.

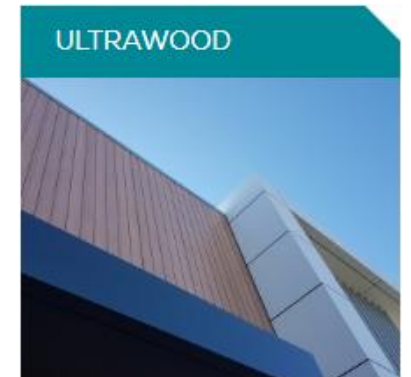
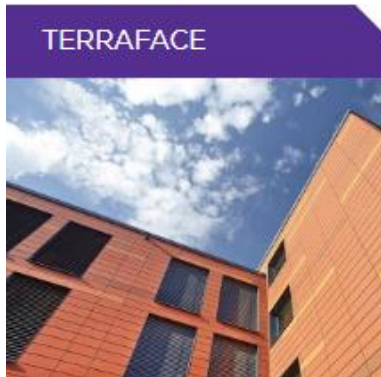


Aluminium Core Panel




Solid Aluminium Panel

# Which BLUECHIP Products are DTS Compliant?





# How do I Specify Fully Compliant DTS Systems?




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Cleaning & Maintenance

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Studtek Framing

Ultrazed Z-angles



SPECIFICATION TEMPLATE

ULTRACORE Non-combustible Aluminium Core Panel

1. SCOPE OF WORK

The scope of work includes the design, supply, fabrication and installation of ULTRACORE non-combustible aluminium core panel, 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: 08 9451 2344) comprising of a 4mm thick aluminium core panel with 0.7mm face skin and 0.5mm rear skins of aluminium sandwiching a non-combustible 2.6mm aluminium core;

• ULTRACORE, 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/non-combustible-cladding-perth>

Fire Properties:

Manufactured by Blue Chip Group Pty Ltd; ULTRACORE is a DTS Non-Combustible product in accordance with NCC 2019 clause C1.9(e)(vii) when tested to AS1530.1 and AS1530.3.

ULTRACORE Aluminium Core Panel		
TEST STANDARD	RESULT	
NCC C1.9(e)(vii)	PASS (Deemed Non-combustible)	
AS1530.1	PASS (Deemed Non-combustible)	
AS1530.3	Ignitability Index	0
	Heat Evolved	0
	Spread of Flame	0
	Smoke Developed	0-1

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.

ULTRACORE Non-combustible Aluminium Core Panel – Draft Specification (V0919)

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**[sales@bluechipgroup.net.au](mailto:sales@bluechipgroup.net.au)**

# Call 1300 945 123 to view this amazing video...

This incredible 18m high test based on AS 5113 had 2 levels of highly flammable PE core panels below 3 levels of ULTRACORE IQ panels. After the 30min test and a raging PE fire, all the PE panels were completely gone and the ULTRACORE IQ panels passed with flying colours, successfully stopped the vertical spread and proving beyond any doubt that it does not contribute to the Spread-of-Fire.

ULTRACORE IQ Cladding

PE Panelling

ULTRACORE Fire-break Test for University of Melbourne Edited

0:05:12

X1 SPEED

0:00:21

