

PROFESSIONAL FIRE SAFETY ENGINEERS

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New Age Veneers Pty Ltd

Navurban
 Navcore
 Navtext
 Navlam
 Enviroven
 Navcompact

PRODUCT and GROUP NUMBER ASSESSMENT TO AS 5637.1

IGNS-7346 I01 R01

Issued: 16.09.2019

Valid for:

- NCC Vol 1 BCA 2019



DOCUMENT REVISION HISTORY

Issue	Revision	Date	Purpose of Issue	Prepared by	Reviewed by
01	00	12-09-18	Issued to client	BHB	FW
01	01	16-09-18	Update test error detail	BHB	FW

Client / Manufacturer



PREMIUM DECORATIVE SURFACES
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CONDITIONS AND LIMITATIONS

This assessment report does not provide an endorsement by Ignis Solutions Pty Ltd of the actual product evaluated.

The conclusions of this assessment 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 hazards under all conditions.

Because of the nature of fire testing, and the consequent difficulty in quantifying the uncertainty of measurement, it is not possible to provide a stated degree of accuracy. The inherent variability in test procedures, materials and methods of construction, and installation may lead to variations in performance between elements of similar construction.

The assessment can therefore only relate only to the actual prototype test specimens, testing conditions and methodology described in the referenced documents, and does not imply any performance abilities of constructions of subsequent manufacture.

This assessment is based on information and experience available at the time of preparation. The published procedures for the conduct of tests and the assessment of test results are the subject of constant review and improvement and it is recommended that this report is reviewed on or, before, the stated expiry date.

This report is prepared in good faith and with due care for information purposes only, and should not be relied upon as providing any warranty or guarantee. In particular, attention is drawn to the nature of the inspection and investigations undertaken and the limitations these impose in determining with accuracy the state of the building, its services or equipment and life safety.

Ignis Solutions' involvement in the Project is limited to the role outlined in section 2 'Scope of Service' of the Letter. This report reflects that role. Any reliance on, or use of, this report for purposes outside the scope of service is at the user's own risk.

Ignis Solutions shall not be held liable for any loss or damage resulting from any defect of the building or its services or equipment or for any non compliance of the building or its services or equipment with any legislative or operational requirement, whether or not such defect or non-compliance is referred to or reported upon in this report, unless such defect or non-compliance should have been apparent to a competent engineer undertaking the evaluation of the type undertaken for the purpose of preparation of this report.

Ignis Solutions has carefully reviewed and applied to the best of our ability the requirements of local Legislation, the current NCC and the International Fire Engineering Guidelines. Any changes to the reference documents including the NCC should warrant a review of this report.



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1 INTRODUCTION

1.1 General

The purpose of this assessment is to report the applicable use and compliance of New Age Veneers range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact against the requirements of the National Construction Code – Volume One – Building Code of Australia 2019 (BCA) to be used as an internal lining to walls and ceiling as well as within internal walls of buildings of Type A, B and C.

The following evaluation considers the compliance of the New Age Veneers range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact in accordance with AS 5637.1:2015 under BCA Clause C1.10 Clause 4. The AS/NZS 3837 testing included the specimen being a timber based material substrate assembly in accordance with Clause 2.2.3.4 of AS/NZS 3837:1998.

The testing has been undertaken by Ignis Labs in accordance with AS/NZS 3837:1998. The 1998 version of the standard is still current and was re-affirmed in 2016.

Ignis Labs follows the requirements of ISO 17025 in its testing procedures. Clause A5.2 of the Building Code of Australia (BCA) establishes the evidence of suitability for buildings and details that the evidence to support that the use of a material or product meets a Deemed-to-Satisfy Provision may be in the form of any one, or any combination of the following.

- A report issued by an Accredited Testing Laboratory; or
- A certificate or report from a professional engineer.

Either of the documents listed above are to demonstrate or certify that a material or product fulfils specific requirements of the NCC; and sets out the basis on which it is given and the extent to which relevant standards, specifications, rules, codes of practice or other publications have been relied upon to demonstrate its suitability for use in the building.

AS5637.1:2016 is a reference report and not a test report. AS 5637.1 does not form part of the scope of accreditation under an Accredited Testing laboratory. Accordingly, in accordance with Clause A5.2 of the BCA a report from a professional engineer establishing compliance with AS 5637.1:2016 is required.

Benjamin Hughes-Brown is a Chartered Professional Engineer and Fellow of Engineers Australia with over 15 years experience in fire safety engineering. Benjamin, satisfy the criteria established by BCA Clause A5.2 being a professional engineer. This is a report from a professional engineer.

1.2 Product

New Age Veneers range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact being wood-based substrate materials with a veneer or film finish.

1.2.1 Navurban OptiShield FR MDF

The sponsor described the tested specimen as a decorative panel laminated with a three dimensional layer with the most advanced embossing techniques available. Testing was done using OptiShield FR MDF.

The test specimens have –

Nominal wall thickness: 12 mm

Nominal mass of sample: 107g

Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Navurban OptiShield FR MDF	Test Report
Clause C1.10, Specification C1.10 Clause 4		IGNL-2091-07-09 I01R00
AS/NZS 3837:1998		
Group Number		2
Average Specific Extinction Area		4.98 m ² /kg



1.2.2 Navurban EO MR MDF

The sponsor described the tested specimen as a decorative panel laminated with a three dimensional olefin film with advanced embossing technology. Testing was done using EO MR MDF.

The test specimens have –

- Nominal wall thickness: 18 mm
- Nominal mass of sample: 125g
- Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Navurban EO MR MDF	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-10 I01R00
Group Number		3
Average Specific Extinction Area		25.87 m ² /kg

1.2.3 Navcore

The sponsor described the tested specimen as a falcatta lightweight substrate cross laminated with 2.5mm MDF skins

The test specimens have –

- Nominal wall thickness: 38-50 mm
- Nominal mass of sample: 189.5g
- Colours: Dark grey resin core with a light grey timber finish

BCA Clause	Navcore	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-02 I01R00
Group Number		3
Average Specific Extinction Area		55.72 m ² /kg

1.2.4 Navcore Navurban

The sponsor described the tested specimen as a lightweight panel manufactured from Falcatta cross laminated and decorated with 2.5mm Nav Urban Olfin film.

The test specimens have –

- Nominal wall thickness: 38-50 mm
- Nominal mass of sample: 140g
- Colours: Timber laminated core with a dark grey timber finish

BCA Clause	Navcore Navurban	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-03 I01R00
Group Number		3
Average Specific Extinction Area		21.22 m ² /kg

1.2.5 Navcore Navtext

The sponsor described the tested specimen as a lightweight panel manufactured from Falcatta cross laminated and decorated with Navtext. The Falcatta core is laminated with 2.5mm MDF skins

The test specimens have –

- Nominal wall thickness: 38-50 mm
- Nominal mass of sample: 140g
- Colours: Timber laminated core with a timber finish



BCA Clause	Navcore Navtext	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-04 I01R00
Group Number		3
Average Specific Extinction Area		67.4 m ² /kg

1.2.6 Navtext

The sponsor described the tested specimen as a decorative panel laminated with a three dimensional paper with the most advanced embossing techniques available. Testing was done on EO Mr MDF.

The test specimens have –

Nominal wall thickness: 18 mm

Nominal mass of sample: 160g

Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Navtext	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-07 I01R01
Group Number		3
Average Specific Extinction Area		8.98 m ² /kg

1.2.7 Navtext FR

The sponsor described the tested specimen as a three dimensional layer with the most advanced embossing techniques available. Testing was done using OptiShield FR MDF.

The test specimens have –

Nominal wall thickness: 12 mm

Nominal mass of sample: 103.8g

Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Navtext FR	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-08 I01R00
Group Number		1
Average Specific Extinction Area		101.04 m ² /kg

1.2.8 Navlam

The sponsor described the tested specimen as a reconstructed timber veneer combined with resin impregnated papers to form a woodgrain pre-finished sheet in a laminate form. Testing was done on EO MR MDF.

The test specimens have –

Nominal wall thickness: 18 mm

Nominal mass of sample: 140g

Colours: Timber reconstructed core with a dark grey laminate finish

BCA Clause	Navlam	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-05 I01R01
Group Number		3
Average Specific Extinction Area		23.21 m ² /kg



1.2.9 Navlam 2

The sponsor described the tested specimen as a reconstructed timber veneer combined with resin impregnated papers to form a woodgrain pre-finished sheet in a laminate form. Testing was done using OptiShield FR MDF.

The test specimens have –

Nominal wall thickness: 16 mm
Nominal mass of sample: 160g
Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Navlam 2	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-06 I01R01
Group Number		1
Average Specific Extinction Area		45.65 m ² /kg

1.2.10 Enviroven Veneer FR

The sponsor described the tested specimen as 0.6mm Reconstructed veneer on 12mm FR MDF OptishiledTM. Testing was done using OptiShield FR MDF.

The test specimens have –

Nominal wall thickness: 12 mm
Nominal mass of sample: 125g
Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Enviroven Veneer FR	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-11 I01R00
Group Number		1
Average Specific Extinction Area		32.71 m ² /kg

1.2.11 Enviroven Veneer EO

The sponsor described the tested specimen as a 0.6mm reconstructed veneer on 18mm EO MR MDF. Testing was done using the EO MR MDF core.

The test specimens have –

Nominal wall thickness: 18 mm
Nominal mass of sample: 120g
Colours: Timber reconstructed core with a woodgrain laminate finish

BCA Clause	Enviroven Veneer EO	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-12 I01R00
Group Number		3
Average Specific Extinction Area		44.13 m ² /kg

1.2.12 Navcompact

The sponsor described the tested specimen as a compact laminate decorated with a UV Olefin film known as Nav Urban.

The test specimens have –

Nominal wall thickness: 13 mm
Nominal mass of sample: 189.5g



Colours: Dark grey resin core with a light grey timber finish

BCA Clause	Navcompact	Test Report
Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998		IGNL-2091-07-01 I01R00
Group Number		3
Average Specific Extinction Area		24.32 m ² /kg

The following evaluation considers the compliance of the New Age Veneers range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact in accordance with AS/NZS 3837:1998 under BCA Clause C1.10 Clause 4 being a cone calorimeter for the assignment of a NCC Group Number.

This report is issued by Benjamin Hughes-Brown, Chartered Professional Engineer or Ignis Solutions Pty Ltd, Suite 08, 14 Lonsdale Street, Braddon, ACT, 2612 for use under the Deemed-to-Satisfy requirements of the National Construction Code Volume One – Building Code of Australia 2019 (BCA).

1.3 Testing Body and Report

Ignis Labs

3 Cooper Place Queanbeyan NSW 2620

- Navurban OptiShield FR MDF IGNL-2091-07-09 I01R00 dated 13 December 2019
- Navurban EO MR MDF IGNL-2091-07-10 I01R00 dated 13 December 2019
- Navcore IGNL-2091-07-02 I01R00 dated 13 December 2019
- Navcore Navurban IGNL-2091-07-03 I01R00 dated 13 December 2019
- Navcore Navtext IGNL-2091-07-04 I01R00 dated 13 December 2019
- Navtext IGNL-2091-07-07 I01R00 dated 13 December 2019
- Navtext FR IGNL-2091-07-08 I01R00 dated 13 December 2019
- Navlam IGNL-2091-07-05 I01R01 dated 13 December 2019
- Navlam 2 IGNL-2091-07-06 I01R01 dated 13 December 2019
- Enviroven Veneer FR IGNL-2091-07-11 I01R00 dated 13 December 2019
- Enviroven Veneer EO IGNL-2091-07-12 I01R00 dated 13 December 2019
- Navcompact IGNL-2091-07-01 I01R00 dated 13 December 2019

1.4 National Construction Code Clause C1.10 Fire Hazard Properties

The following clauses of the BCA (including all related State and Territory variations) have been evaluated and identified as being complied with:

- Performance Requirement CP2 and CP4
 - Clause C1.10
 - Sub-clause (a)(ii) wall linings and ceiling linings that comply with Specification C1.10 Clause 4

Navurban OptiShield FR MDF, Navurban EO MFR MDF, Navcore, Navcore Navurban, Navcore Navtext, Navtext, Navlam, Enviroven Veneer EO, Navcompact	
Group Number	3
Average Specific Extinction Area	8.98 to 44.13 m ² /kg

Navurban OptiShield FR MDF	
Group Number	2
Average Specific Extinction Area	4.98 m ² /kg

Navtext FR, Navlam 2, Enviroven Veneer FR	
Group Number	1
Average Specific Extinction Area	45.65 to 101.04 m ² /kg



1.5 Application

From the above testing the New Age Veneer range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact has been evaluated and deemed suitable for use in Class 2-9 buildings within the building envelope for Type A, B or C construction as follows:

A Internal Wall and/or Ceiling soffit lining	
The installation is to be in a sprinkler or non-sprinkler protected compartment. This includes soffit application for an occupied outdoor area.	
BCA Clause	
Clause C1.10, Specification C1.10 Clause 4	AS/NZS 3837:1998
Navurban OptiShield FR MDF, Navurban EO MFR MDF, Navcore, Navcore Navurban, Navcore Navtext, Navtext, Navlam, Enviroven Veneer EO, Navcompact	
Group Number	3
Average Specific Extinction Area	8.98 to 44.13 m ² /kg
Navurban OptiShield FR MDF	
Group Number	2
Average Specific Extinction Area	4.98 m ² /kg
Navtext FR, Navlam 2, Enviroven Veneer FR	
Group Number	1
Average Specific Extinction Area	45.65 to 101.04 m ² /kg
Installation Conditions	
The New Age Veneer range of products is to be installed in accordance with the New Age Veneer installation guide.	

1.6 Group Number Assessment to AS 5637.1

The group number classification for the New Age Veneers range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact has been evaluated by Ignis Solutions in accordance with the requirements of AS 5637.1 as required by NCC 2019.

This evaluation report relates only to the product as described herein and is based on the results evidenced by the accredited test reports as detailed herein. While the results of an accredited test may be used to directly assess fire performance, no single test method or result can provide a full assessment of any product under all fire conditions.

Ignis Solutions Pty Ltd makes no warranty as to the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship.



2 DEFINITION AND REFERENCES

2.1 Definitions

Within the BCA a hierarchy of defined terms is established. The first level is defined terms as per Clause A1.1 of the BCA. The second level is the reference standard and the third is the Australian Macquarie Dictionary.

Flammability Index means the index number as determined by AS 1530.2.

Fire hazard properties means the following properties of a material or assembly that indicate how they behave under specific fire test conditions:

- (a) Average specific extinction area, critical radiant flux and Flammability Index, determined as defined in Schedule 3.
- (b) Smoke-Developed Index, smoke development rate and Spread-of-Flame Index, determined in accordance with Schedule 6.
- (c) Group number and smoke growth rate index (SMOGR_{RC}), determined in accordance with Specification C1.10 of Volume One.

Group number means the number of one of four groups of materials used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining, or attachment to a wall or ceiling.

Insulation, in relation to an FRL, means the ability to maintain a temperature on the surface not exposed to the furnace below the limits specified in AS 1530.4.

Reflective insulation means a building membrane with a reflective surface such as a reflective foil laminate, reflective barrier, foil batt or the like capable of reducing radiant heat flow.

Sarking-type material means a material such as a reflective insulation or other flexible membrane of a type normally used for a purpose such as water proofing, vapour proofing or thermal reflectance.

Smoke-Developed Index means the index number for smoke as determined by AS/NZS 1530.3.

Smoke growth rate index (SMOGR_{RC}) means the index number for smoke used in the regulation of fire hazard properties and applied to materials used as a finish, surface, lining or attachment to a wall or ceiling.

Spread-of-Flame Index means the index number for spread of flame as determined by AS/NZS 1530.3.

2.2 References

The following information sources were used in the evaluation of the product. These references should be read in conjunction with this report.

- [1] National Construction Code – 2019 – Volume One – Building Code of Australia Class 2 to 9 Buildings.
- [2] Guide to the Building Code of Australia 2019 – Volume One, Class 2 to Class 9 Buildings', Australian Building Codes Board, 2019 (the Guide).
- [3] International Fire Engineering Guidelines, Australian Building Codes Board, Canberra, 2005
- [4] AS 5637.1:2015 Determination of fire hazard properties – wall and ceiling linings
- [5] AS ISO 9705:2003 Fire tests – full scale room test for surface products
- [6] AS/NZS 3837:1998 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter.
- [7] Navurban OptiShield FR MDF IGNL-2091-07-09 I01R00 dated 13 December 2019
- [8] Navurban EO MR MDF IGNL-2091-07-10 I01R00 dated 13 December 2019
- [9] Navcore IGNL-2091-07-02 I01R00 dated 13 December 2019
- [10] Navcore Navurban IGNL-2091-07-03 I01R00 dated 13 December 2019
- [11] Navcore Navtext IGNL-2091-07-04 I01R00 dated 13 December 2019
- [12] Navtext IGNL-2091-07-07 I01R00 dated 13 December 2019
- [13] Navtext FR IGNL-2091-07-08 I01R00 dated 13 December 2019



- [14] Navlam IGNL-2091-07-05 I01R01 dated 13 December 2019
- [15] Navlam 2 IGNL-2091-07-06 I01R01 dated 13 December 2019
- [16] Enviroven Veneer FR IGNL-2091-07-11 I01R00 dated 13 December 2019
- [17] Enviroven Veneer EO IGNL-2091-07-12 I01R00 dated 13 December 2019
- [18] Navcompact IGNL-2091-07-01 I01R00 dated 13 December 2019

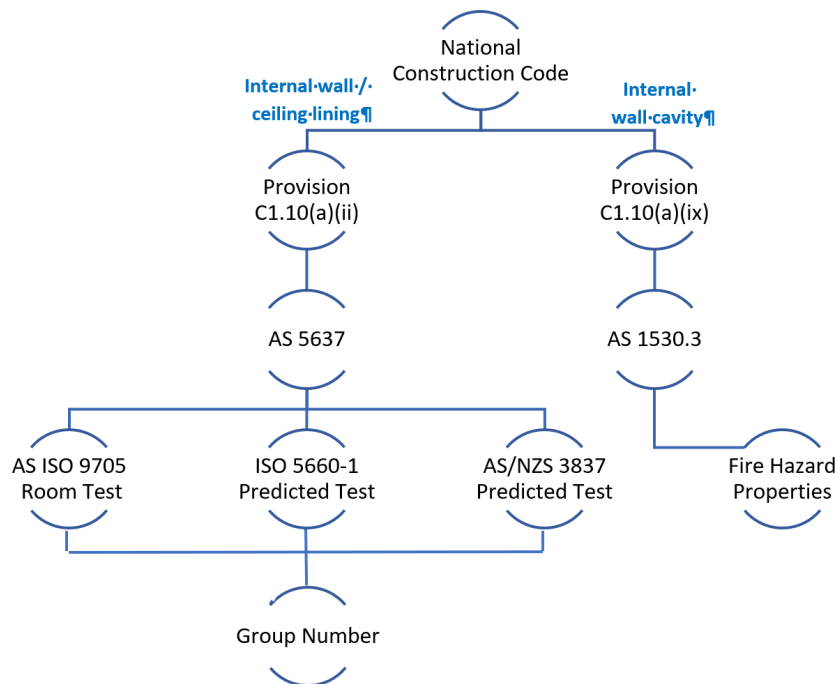
3 BACKGROUND

The testing of fire hazard properties in accordance with the BCA for wall/ceiling lining, insulation and sarking type material is in accordance with the requirements of Group numbers, Smoke Development Index, Spread-of-Flame Index and Flammability Index. AS 5637.1:2015 is a referenced document under the BCA whilst AS ISO 9705:2003, AS/NZS 3837:1998 and ISO 5660.1:2015 are secondary references contained within AS 5637.1:2015.

As detailed above in Definitions and further discussed below, the following test standards are referenced and applied within the BCA for determining the appropriate fire hazard properties.

The hierarchy of fire hazard property testing for internal lining and insulation cavity compliance is detailed below.

FIGURE 1:
HIERARCHY OF TEST STANDARDS FOR INTERNAL LINING COMPLIANCE



3.1 AS 5637:2015

This Standard sets out procedures for the assessment of internal wall and ceiling linings according to—

- a) their tendency to ignite;
- b) their tendency to release heat once ignition has occurred;
- c) their tendency to cause flashover;
- d) their tendency to release smoke; and
- e) their contribution to fire growth,



and allows for determination of group number, smoke growth rate index (SMOGR_{RC}) and, where required, average specific extinction area (ASEA).

The group number of a material shall be assigned as follows when tested in accordance with Clause 4.3 of the standard:

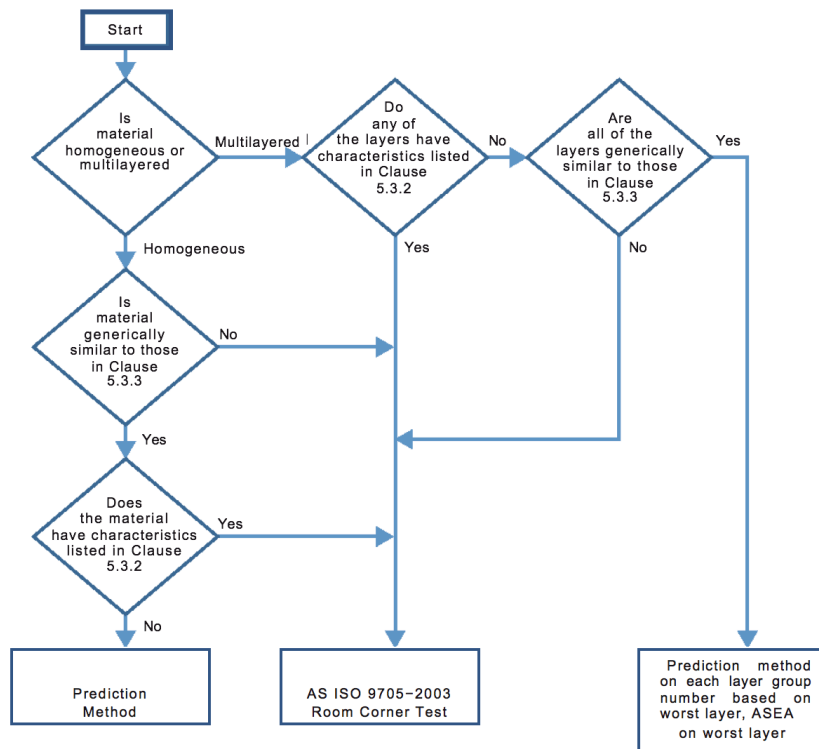
- a) Group 1—material that does not reach flashover when exposed to 100 kW for 600 s followed by exposure to 300 kW for 600 s.
- b) Group 2—material that reaches flashover following exposure to 300 kW within 600 s after not reaching flashover when exposed to 100 kW for 600 s.
- c) Group 3—material that reaches flashover in more than 120 s but within 600 s when exposed to 100 kW.
- d) Group 4—material that reaches flashover within 120 s when exposed to 100 kW.

The group number of a material shall be determined by either—

- a) physical testing in accordance with AS ISO 9705:2003; or
- b) if the material has a confirmed correlation, prediction in accordance with Clause 4.4 using data obtained by testing the material at 50 kW/m² irradiance in the horizontal orientation with edge frame in accordance with ISO 5660-1:2015 or AS/NZS 3837:1998, as appropriate to the test conducted.

FIGURE 2:

AS 5637:2015 GUIDANCE ON SELECTION OF TEST METHOD



As referenced in the above figure, Clause 5.3.2 details unsuitable materials for empirical correlations (i.e. small scale cone calorimeter testing) as well as Clause 5.3.3 which details the materials which are permitted to be tested by way of empirical correlations. Clause 5.3.2 and Clause 5.3.3 of AS 5637:2015 are detailed below.



5.3.2 Unsuitable materials

The empirical correlations shall not be used for products or assemblies—

- a) with profiled facings not allowed by AS/NZS 3837:1998;
- b) that contain materials that melt or shrink away from a flame;
- c) with joints or openings; and
- d) with a reflective surface.

5.3.3 Materials for which the correlation is permitted include—

- a) painted or unpainted paper-faced gypsum plasterboard;
- b) solid timber and wood products such as particleboard and plywood; and
- c) rigid non-thermoplastic foams such as polyurethane.

The New Age Veneers range of products being Navurban, Navcore, Navtext, Navlam, Enviroven and Navcompact are a wood based product and under Clause 5.3.3 is suitable for testing under AS/NZS 3837:1998.

3.2 AS/NSZ 3837:1998 / ISO 5660.1:2015

AS/NZS 3837:1998 and similarly ISO 5660.1:2015 specify a test method for measuring the response of materials exposed to controlled levels of radiant heating with or without an external igniter. The test method is used to determine the ignitability, heat release rates, mass loss rates, effective heat of combustion, and smoke release of materials and products.

Properties are determined as follows:

- a) Rate of heat release, by measurement of the oxygen consumption, as determined by the oxygen concentration and the flow rate in the exhaust product stream.
- b) Effective heat of combustion from a concomitant measurement of specimen mass loss rate, in combination with the heat release rate.
- c) Smoke release, by obscuration of light by the combustion product stream.
- d) Ignitability, as a measurement of time from initial exposure to time of sustained flaming.

The purpose of the standards is to establish a test method for material and product evaluations, mathematical modelling, design purposes or development and research. The material may comprise specimens from an end-use product or the various components used in the end-use product.

Specimens may be exposed to heating fluxes ranging from 0 to 100 kW/m². External ignition, when used, is by electric spark. The value of the heating flux and the use of external ignition are to be as specified in the relevant material or performance standard. The normal specimen testing orientation is horizontal, independent of whether the end-use application involves a horizontal or a vertical orientation. Provisions are also made for vertical orientation testing; this is intended for exploratory or diagnostic studies only.

The test method is based on the observation that, generally, the net heat of combustion is directly related to the amount of oxygen required for combustion. The relationship is that approximately 13.1 × 10³ kJ of heat are released per 1 kg of oxygen consumed. Specimens in the test are burned in ambient air conditions, while being subjected to a predetermined external heat flux, which can be set from 0 to 100 kW/m². Burning may be either with or without a spark ignition. The primary measurements are oxygen concentrations and exhaust gas flow rate. Additional measurements include the mass-loss rate of the



specimen, the time to sustained flaming and smoke obscuration, or as required by the relevant material or performance Standard.

This test method is used primarily to determine the heat released from a fire involving products of the test material. Also included is a determination of the effective heat of combustion, mass loss rate, the time to sustained flaming and smoke released. These properties are determined on small size specimens that are representative of those in the intended end use.

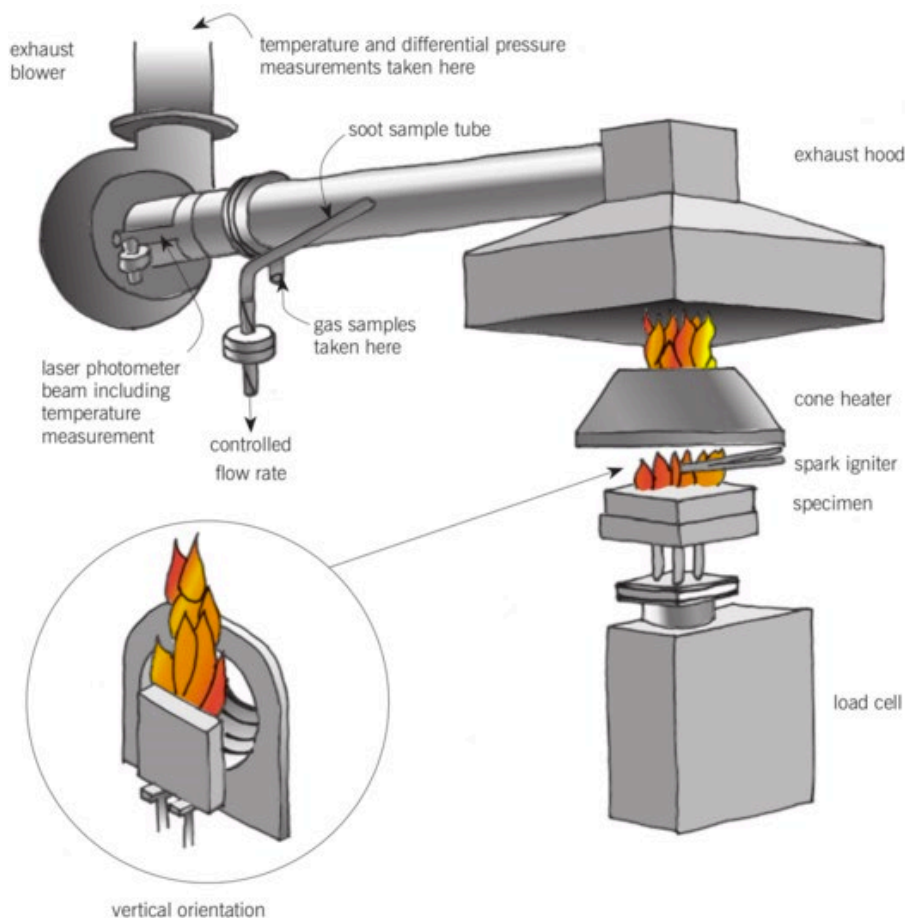
This test method is applicable to various categories of products and is not limited to representing a single fire scenario.

These Standards should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire hazard assessment which takes into account all of the factors that are pertinent to an assessment of the fire hazard of a particular end use.

These Standards do not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of the Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Many common combustibles do not have the geometrically simple surfaces required to make computations of this kind. Other complications, such as melting, dripping, or collapsing can also preclude a detailed mathematical analysis.

FIGURE 3:

AS/NZS 3837:1998 / ISO 5660.1:2015 CONE CALORIMETER TEST ASSEMBLY





4 SUMMARY OF TEST RESULTS

The assessment evaluates the product as an internal wall/ceiling lining achieving the following results:

BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navurban OptiShield FR MDF	Test Report IGNL-2091-07-09 I01R00 2 4.98 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navurban EO MR MDF	Test Report IGNL-2091-07-10 I01R00 3 25.87 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navcore	Test Report IGNL-2091-07-02 I01R00 3 55.72 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navcore Navurban	Test Report IGNL-2091-07-03 I01R00 3 21.22 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navcore Navtext	Test Report IGNL-2091-07-04 I01R00 3 67.4 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navtext	Test Report IGNL-2091-07-07 I01R01 3 8.98 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navtext FR	Test Report IGNL-2091-07-08 I01R00 1 101.04 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navlam	Test Report IGNL-2091-07-05 I01R01 3 23.21 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navlam 2	Test Report IGNL-2091-07-06 I01R01 1 45.65 m ² /kg



BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Enviroven Veneer FR	Test Report IGNL-2091-07-11 I01R00 1 32.71 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Enviroven Veneer EO	Test Report IGNL-2091-07-12 I01R00 3 44.13 m ² /kg
BCA Clause Clause C1.10, Specification C1.10 Clause 4 AS/NZS 3837:1998 Group Number Average Specific Extinction Area	Navcompact	Test Report IGNL-2091-07-01 I01R00 3 24.32 m ² /kg



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