

# Exposed



**Issued:** December 2022





## NZBC Alternative Solution Product Compliance Statement

Exposed

### saveBOARD Exposed

#### What is saveBOARD?

saveBOARD Exposed pre-finished interior lining is a unique structural composite panel made from 100% upcycled materials.

The core of the product is made from shredded and compressed composite packaging, giving the user a sustainable and superior performing product.

saveBOARD does not use glues, resins or other such biological or environmentally harmful products. During construction, or in-service use saveBOARD does not create harmful dusts, vapours, or other potentially harmful Volatile Organic Compounds (VOC's).

The saveBOARD construction boards are semi-vapour permeable, durable wall and roofing products. The product is designed for use with timber or steel framing and is finished with a transparent film on the top surface and a recycled facing paper on the bottom surface.

Using saveBOARD reduces embodied energy by -2.7 kgCO $_2$  eq/sqm. This is a significant climate change benefit compared to traditional building materials which add carbon to a building.

saveBOARD Exposed pre-finished interior lining is manufactured in New Zealand for exclusive use in New Zealand & Australia. Please refer to the saveBOARD Exposed pre-finished interior lining Technical Statement for compliance with relevant performance clauses of New Zealand & Australian Building Codes / Permits.

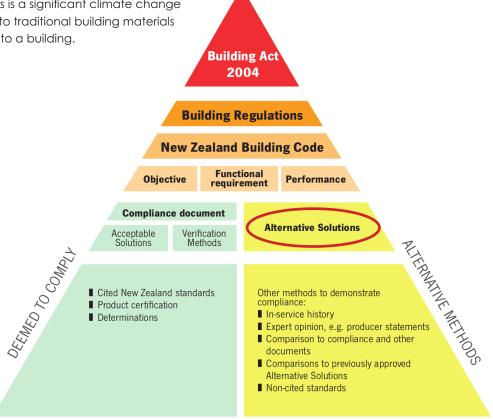
saveBOARD Exposed pre-finished interior lining may be overlaid on self-supporting product/structure and can be used for the verified specified uses.

#### What is saveBOARD's scope of use?

saveBOARD Exposed pre-finished interior lining fit for use in NZ by an Engineering Statement for NZBC compliance including specific Structural testing by Scion laboratories.

How does saveBOARD demonstrate compliance with NZBC?

saveBOARD Wall and Roofing substrate is as an **Alternative Solution Product**.





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### Primary NZ Compliance Evidence

### NZBC Compliance Appraisal – Compliance Statements (NZ)

 saveBOARD Exposed pre-finished interior lining is supported by a Compliance Statement.

Please refer to the saveBOARD technical support literature, NZBC Compliance Appraisals and product test information available on the saveBOARD website.

#### NZ - Expert Analysis and Testing – July 2021 – Still Current

- saveBOARD has been independently appraised against NZBC compliance.
- saveBOARD has been independently tested by a leading NZ recognised research Laboratories -SCION.

## Support Compliance Evidence

#### In-service History

 The saveBOARD product has been successfully used in the US for over 12 years.

#### US - Expert Analysis and Testing 2015 – Current

- saveBOARD has been independently tested and verified to internationally recognised standards by accredited testing laboratories in the US.
- saveBOARD has achieved compliance with the International Building Code for use in the US as an internal wall and ceiling lining.

#### NZBC Compliance Appraisal Notes

An NZBC Compliance Appraisal is a technical opinion of a building product or system's fitness for purpose. It involves extensive testing and verification of Building Code compliance and is done by an independent appraisal organisation. (Such as Chartered Engineer or Accredited Testing Laboratory).

An appraisal looks at any specific installation systems or processes. It recognises limitation on a product's intended scope of use.

Appraisals have no legal standing. However, they can form a useful part of your evidence of compliance.

Products are assessed against a wide range of performance factors. These include:

- the requirements of the Building Code
- performance under test conditions
- in-service performance
- accuracy of the product's technical information
- manufacturing procedures and quality control systems.

#### Appraisal organisations

An appraisal organisation should be independent of the product's manufacturer or distributor.

#### It should have:

- thorough and validated testing procedures (for example, its processes are reviewed by a third party)
- suitably qualified staff (such as engineers and research scientists).

The organisation should also carry out or require:

- regular inspections to ensure the product conforms during manufacture
- regular inspections to ensure the product conforms when in use
- knowledge of the Building Code and building science.

You can use an appraisal organisation from outside New Zealand. However, the product needs to be assessed against the New Zealand Building Code.

Ref - https://www.building.govt.nz/building-codecompliance/product-assurance-and-multiproof/productassurance/your-product-and-the-law/





## SaveBOARD INTERNAL LINING AND WALL BRACING

#### **PURPOSE**

Upcycled Building Materials Limited manufacture and supply saveBOARD building products for use as an internal wall and ceiling lining. It is also intended for use as a ceiling diaphragm and to provide wall bracing.

#### **EXPLANATION**

saveBOARD is a structural composite panel manufactured from shredded and compressed composite packaging. The panels are supplied in two face finishes, paper-faced and exposed. The paper-faced panel has a recycled paper on the finished face while the exposed has a clear LDPE plastic transparent film on the finished face.

Both boards are 1200 mm in width and supplied in two thicknesses: 10 mm and 12 mm, and three lengths: 2400, 2700, 3000 mm. The paper-faced panel may be painted, wallpapered, or be used as a tile substrate; as for plasterboard. The exposed panel is designed to be left in its natural state and requires no other finishing.

saveBOARD is manufactured from 100% recycled materials diverted from landfill, and all offcuts and waste may be reused as feedstock for new product.



For further assistance please contact:



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#### **SCOPE AND LIMITATIONS OF USE**

Limitations
> Where installed over steel framing, a thermal break is required.
> Where paper-faced panels are installed in a wet area, a protective coating must be applied.
> saveBOARD should only be used where material group number 3 applies.
<ul> <li>Installation must be in accordance with Scion P21 test assembly and Upcycled Building Materials Limited installation requirements.</li> <li>saveBOARD 10 mm must be used.</li> </ul>

#### **CONDITIONS OF USE**

Upcycled Building Materials Limited do not allow any substitution of the assembly or assembly components where saveBOARD Paperfaced or Exposed has been designed and specified.

#### **PERFORMANCE CLAIMS**

If designed, installed and maintained in accordance with all Upcycled Building Materials Limited requirements, the saveBOARD will comply with or contribute to compliance with the following performance claims:

NZ Building	BASIS OF COMPLIANCE	
Code clauses	Compliance statement	Demonstrated by
<b>B1 STRUCTURE</b> B1.3.1, B1.3.2, B1.3.3 (a, b, c, e, f, i, j, l, m, o, r)	VERIFICATION METHOD and	<ul> <li>P21 wall bracing [Scion: 18/09/2020a, 18/09/2020b].</li> <li>TBB product performance evaluation for use as an internal lining or bracing element [TBB, 11/2021].</li> </ul>
B1.3.4 (a, b, c, d, e)	ALTERNATIVE SOLUTION	➤ Bending stiffness and strength test to AS/NZS 2269.1:2012 [Scion, 08/2021].

#### **USEFUL INFORMATION**

For information on the design, installation and maintenance of saveBOARD and for our warranty refer to www.saveboard.nz.

NZ Building		BASIS OF COMPLIANCE
Code clauses	Compliance statement	Demonstrated by
		<ul> <li>Compression indentation testing to ASTM D2394-83 [Intertek, 26/11/2013].</li> <li>Testing to ASTM E2126 and CUREE protocol and ASTM D3043 for performance under lateral load, lateral shear load and centre point flexure load to determine bending stiffness, flexural modulus and rupture modulus [DrJ, 18/12/2013].</li> <li>Flexural capacity (three point bending) evaluation to ASTM D3043 [ [Auckland UniServices Ltd, n.d.].</li> </ul>
<b>B2 DURABILITY</b> B2.3.1 (a), B2.3.2 (a)	ALTERNATIVE SOLUTION	➤ TBB product performance evaluation for use as an internal lining or bracing element [TBB, 11/2021].
		<b>&gt;</b> Water vapour transmission and permeance tested to E96-16 [Intertek, 30/05/2018].
		➤ Tested to ASTM D2373-12 for resistance to growth of mould [Intertek, 29/07/2013].
E3 INTERNAL MOISTURE E3.3.1, E3.3.4, E3.3.5	ACCEPTABLE SOLUTION	➤ Water vapour transmission and permeance tested to E96-16 [Intertek, 30/05/2018].
		➤ TBB product performance evaluation for use as an internal lining or bracing element [TBB, 11/2021].
		> Tested to ASTM D2373-12 for resistance to growth of mould [Intertek, 29/07/2013].
		Sustainable Engineering ASHRAE 160P Hygrothermal modelling / mould growth (Sept 2020).
F2 HAZARDOUS BUILDING MATERIALS	ALTERNATIVE SOLUTION	➤ VOC and formaldehyde testing to ASTM D5116:2017 [CETEC: 26/08/2021a, 26/08/2021b].
F2.3.1		➤ TBB product performance evaluation for use as an internal lining or bracing element [TBB, 11/2021].
H1 ENERGY EFFICIENCY	ACCEPTABLE SOLUTION	➤ Thermal conductivity tested to ASTM C518 [Intertek, 02/2012].

#### **SOURCES OF INFORMATION**

- Auckland UniServices Ltd. [n.d.] Evaluation of the flexural capacity of ReWall products (three point bending).
- ➤ CETEC. [26/08/2021a] ASTM D5116-2017 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products. VOC Emission Test Certificate.
- ➤ CETEC. [26/08/2021b] ASTM D5116-2017 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products. VOC Emission Test Certificate.
- DrJ. [18/12/2013] Technical Evaluation Report. TER No. 1202-02.
- Intertek. [29/07/2013] *Test Report.* Report number 101207581COL-001.
- Intertek. [26/11/2013] Test Report. Report number 101416039MID-001.
- ➤ Intertek. [30/05/2018] Test Report. Testing Halfback Roofing Board to Evaluate Water Vapour Transmission and Permeance in accordance with ASTM E96-16 (Procedure B). Document control no. ATI 00231.
- Scion. [18/09/2020a] P21:2010 1200mm x 2.4m 10mm Saveboard with brackets (single wall).
- Scion. [18/09/2020b] P21:2010 1200mm x 2.4m 10mm Saveboard without brackets.
- > Scion. [08/2021] Bending stiffness and strength tests on 12mm saveBOARD.
- Scion. [28/09/2021] Screw head pull through Testing TE21-007 on 12mm saveBOARD.

Upcycled Building Materials Limited confirms that if saveBOARD is used in accordance with the requirements of this pass™ the product will comply with the Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14 G of the Building Act.

Date of first issue:

Date of current issue:

NZBN:

➤ TBB. [11/2021] Product Performance Evaluation of saveBOARD where used as an internal lining or bracing element.



SCAN OR CLICK THIS QR CODE FOR A FULL DOWNLOAD OF COMPLIANCE DOCUMENTATION FOR THIS PASS™.





- Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable.
- Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards.

#### Kevin Brunton

Kevin Brunton, Technical Director, TBB confirms that this pass has been prepared on behalf of the Upcycled Building Materials Limited and in accordance with MBIE PTS guidelines and in accordance with the TBB pass™ process which is within the scope of TBB's ISO 9001 certification.

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