

PRODUCT TECHNICAL STATEMENT

Product Description	<p>saveBOARD betterBRACE 4Steel is a semi vapour permeable structural composite panel made from 99% recycled materials.</p> <p>The core of the product is made from shredded and compressed composite packaging and soft plastics.</p> <p>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 dust, vapours, or other potentially harmful Volatile Organic Compounds (VOC's).</p> <p>betterBRACE 4Steel is designed for use with steel framing and is finished with a moisture-resistant facer on one side and a 10mm EPS thermal break on the internal side.</p> <p>betterBRACE 4Steel is manufactured in New Zealand for exclusive use in New Zealand & Australia. Please refer to the saveBOARD Product Assurance Supplier Statement for compliance with relevant performance clauses of New Zealand & Australian Building Codes/Permits.</p> <p>Panel sizes are as follows:</p> <ul style="list-style-type: none"> ■ 2450 mm x 1200 mm x 17mm ■ 2750 mm x 1200 mm x 17mm ■ 3050 mm x 1200 mm x 17mm <p>Custom cut length between 2450-6000mm available</p>
Scope of Use	<p>For use as a Thermally broken rigid air barrier and structural bracing when installed in accordance with the saveBOARD betterBRACE 4Steel Design & Installation Guide.</p> <p>As a thermally broken rigid air barrier for use in residential to multi-story construction up to 10 metres. On a Steel frame. Designed for use in Extra High wind zones and in specific engineering design projects. Finished with an external moisture resistant facing material; it is an alternative to traditional building underlays or thermally broken rigid air barriers.</p> <p>Located in Exposure zones B, C and D (as defined in NZS3604:2011 section 4.2), except microclimates. Located in Climate Zones 1, 2 and 3 where the internal lining is plasterboard Located in any Climate Zone where the indoor environment is controlled between 18C and 24C and the relative humidity maximum 65% rh</p>
Warranty	15 years

Limitations / Disclaimer

Exposure:
 Option A: Over fix with flexible wrap within 30 days to achieve up to 90days or;
 Option B: Jointing tape within 30 days before cladding.

Wind Zone Extra High or to Specific Engineered Design (S.E.D)

Compliance with the New Zealand Building Code	saveBOARD betterBRACE 4Steel specified as a thermally broken rigid air barrier and installed in accordance with betterBRACE 4Steel Design & Installation Guide, contributes to meeting the following provisions of the NZ Building Code:
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B1 Structure

Clause B1 Structure: Performance Clauses B1.3.1, B1.3.2, B1.3.3 (b, f, h), B1.3.4. Wall framing must comply with: NASH Standard Part Two: 2019 'Light Steel Framed Buildings'

saveBOARD betterBRACE 4Steel has demonstrated appropriate structural properties through independent analysis.

The product has been assessed as an: ALTERNATIVE SOLUTION – Equivalent to (verification method B1/VM1).

*(Please refer to <https://www.saveboard.nz/betterbrace-4steel> for current test certification)

B2 Durability

Clause B2 Durability: Performance Clauses B2.3.1 (a); B2.3.2

saveBOARD betterBRACE 4Steel is manufactured to meet the requirements of the NZBC Clause B2 Durability.

The product has been assessed as an: ALTERNATIVE SOLUTION – Equivalent to (Acceptable Solution B2/AS1, 3.2.1).

If saveBOARD is appropriately stored and used in accordance with good building practices and the betterBRACE Installation Guide, it will comply with the requirements of the NZBC B2.

betterBRACE 4Steel achieves NZBC B2 Durability requirements as part of a combined system reliant upon other building products.

E2 External moisture

Clause E2 External Moisture: Performance Clauses E2.3.2 (contributes to), E2.3.5 (contributes to), E2.3.6 (contributes to), E2.3.7

saveBOARD betterBRACE 4Steel when used as rigid air and installed as per the saveBOARD Installation Guide will meet the performance requirements of E2.3.2 (contributes to), E2.3.7

F2 Hazardous building materials

Clause F2 Hazardous Building Materials: Clauses F2.3.1

saveBOARD betterBRACE 4Steel meets the requirement of NZBC F2 and the performance requirement of F2.3.1. No harmful chemical treatment is used in the manufacturing process.

It does not present a health hazard to people (during construction and building use). No harmful dust or gases are released.

H1 Energy efficiency **Clause H1 Energy Efficiency: H1.3** Clauses H1.3.1 (b) (contributes to)
 saveBOARD betterBRACE 4Steel when used as thermally broken rigid air and installed as per the saveBOARD Installation Guide will meet the performance of H1.3.1, (contributes to)

saveBOARD betterBRACE Rigid Air Barrier Properties	
Thickness	17mm (7mm rigid air barrier + 10mm EPS)
Width, Standard	1200mm
Length, Standard	2450 /2750 / 3050mm (Up to 6000mm special)
Tolerance (width, length, thickness)	+/- 1mm
Pieces Per Pallet	30
Density, Nominal kg/m3	850
Density Nominal kg/m2	5.9
Compressive Strength ASTM D2394	3990 psi
Flexural Modulus (E)	110,400 psi
Rupture Modulus (Sb)	670 psi
Bending Stiffness MoEj	0.61 GPa
Bending Strength RoEj	22.0 MPa
Tensile Modulus	125 MPa
Tensile Strength	6.05 MPa
Fire- Resistance UL 790 – ASTM E108	Class A
Fire Group Number – AS3837	3
Flute Span ability ASTM E661	17"
Mould Resistance – ASTM D3273	10/10
VOC Emissions - ASTM D5116	<0.003 mg/m2/hr
Formaldehyde Emission ASTM D5116	<0.013 mg/m2/hr
Carbon (A1-3 including biogenic)	-3.8kg/CO/m2
Thermal conductivity acc. to EN13986	0.40 W/mK
Permeability – ASTM E96	7.0 MN.s/g
Air resistance - ISO 5636/5	1.5 MN.s/m³
Thermal Resistance (R Value)	R 0.4
Wind Uplift Resistance – FM 4471	FM 1-90
Water Absorption (Immersion) % Max – ASTM C473	3.9
Water Absorption (Surface) % Max – ASTM C473	2.8
Total VOC Rate - ASTM D5116-2017	<0.003 mg/m2/hr
Formaldehyde Emission Rate - ASTM D5116-2017	0.013 mg/m2 /hr
Acoustic ASTC34-3001	21 dBA STC (est)

Quality Assurance

saveBOARD's Quality Assurance process and records are independently audited by a third-party product appraisal organisation.

The Third-party organisation have demonstrated/accredited knowledge of the Building Code and building science, and carry out appropriate sample analysis and reporting on;

- Regular inspections, testing and monitoring of properties to ensure the product conforms during manufacturing.
- Periodic inspections, observations to ensure the product continues to meet the performance requirements when in use.

Not Perfect

betterBRACE 4Steel is made from 100% recycled composite packaging, with a moisture resistant face combined with 10mm EPS backing. Please note that the surface may look marked, or even mouldy. This appearance is simply the colour in the recycled packaging that can be seen through the fibre glass face. The colour can get embedded into the fibre glass during manufacture when heat and pressure are applied. This does not affect the performance of the product in any way. saveBOARD products also have a dimensional tolerance of + / - 1mm

Sustainability

No raw materials are extracted to use in the manufacture of saveBOARD product. All saveBOARD product is manufactured in New Zealand or Australia from 99% locally sourced and recycled composite packaging and soft plastics

Every panel of betterBRACE 4Steel saves approximately 20kgs of waste from landfill depending on the thickness used.

No water, glues, resins or additives are used in the production process.

The Embodied Energy (calculated Cradle to Gate A1-3 including biogenic) of betterBRACE -3.8kgCO₂/m² (17mm).

betterBRACE 4Steel has a DECLARE label and is deemed suitable for use in Living Building Challenge

Product Stewart Program - site off cuts can be returned to saveBOARD to be reused in the manufacture of new product

End of Life - saveBOARD product can be returned at End of Life to be reused in the manufacture of new product

VOC and formaldehyde free. No toxic or harmful dust or vapours are created during installation of saveBOARD products

saveBOARD is Eco Choice Aotearoa Certified

Installation Requirements

saveBOARD betterBRACE 4Steel used as a thermally broken rigid air barrier must be installed in accordance the NZBC saveBOARD betterBRACE 4Steel Design & Installation Guide or details provided by a Licensed Building Practitioner.

Check all jointing tapes, building wraps, sealants and cladding are compatible with saveBOARD betterBRACE 4Steel as listed in the design & installation guide.

Installation information The installation guide can be found on the saveBOARD website <https://www.saveboard.nz/betterbrace-4steel> in written or video instructions.

Service Life saveBOARD betterBRACE 4Steel will continue to satisfy the relevant performance requirements of the NZBC for 50 years if all the requirements set out in this Product Technical Statement and the specific design parameters of the project are met.

Maintenance Requirements If the wall underlay and cladding is properly maintained and inspected saveBOARD betterBRACE 4Steel will not normally require maintenance as a rigid air barrier

Product Support All documents relating to compliance, case studies, specification, installation, maintenance and warranty can be found on the website <https://www.saveboard.nz/betterbrace-4steel>

saveBOARD has technical experts available to assist with any product enquiries. You can contact the team via the contact details on the website.

Legal Disclaimer The information contained in this document is current as of March 2026 and is based on data available at the time of going to print. saveBOARD reserves the right to change the information contained in this document without prior notice. It is your responsibility to ensure that you have the most up to date information available. You can contact the team via the contact details on the website.

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