BIFORM
SUSTAINABLE BUILDING MATERIALS

architecture +engineering
BURRETT + ASSOCIATES LTD

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Product Technical Statement

For

BiForm Solid Composite Decking, FORM 130, FORM 140, ForestBoard, ForestBoard Slim, Ultra Board and Ultra board Slim

PTS Version 8. October 2026

1. Product Description

BiForm Solid Composite Decking boards are a timber decking alternative made from wood plastic composite for use over timber and aluminium framed decks. The boards are made up of 30% recycled plastic and 60% waste timber fibre with the remainder of the composition consisting of anti-fungal agents, UV stabilisers and colouring. The boards are 4850mm long and are available in six profiles - FORM 130 (130mm x19mm), FORM 140 (140mmx25mm), ForestBoard (138mmx20mm), ForestBoard Slim (70mmx20mm), Ultra Board (140mmx40mm) and Ultra Board Slim (70mmx40mm). The ForestBoards and Ultra Boards have the same material formulation.

2. Purpose and Use

The intended use of Biform composite decking boards (FORM 130, FORM 140, ForestBoard, ForestBoard Slim, Ultra Board and Ultra Board Slim) is as an alternative to timber, or other conventional decking materials for external decks.

3. Conditions

3.1 This product technical statement is based on BRANZ Appraisal No. 680(2015) Amended 2025, Test Report No. 161213008SHF-BP-1 (2017-02-09), Static Bending Test Results dated 2016-12-06, 2026-03-19, 2026-08-10 and 2026-07-17. The test results are included in the Burrett and Associates Ltd supporting calculations.

3.2 This product technical statement will no longer be valid if the test reports or BRANZ Appraisal are no longer current, or any changes are made to the product specifications.

3.3 The BRANZ Appraisal states;

The three profiles of BiForm Solid Composite Decking (FORM 130, FORM 140 and ForestBoard) are suitable for use on decks designed for 2kPa floor loads as required by NZS 3604 Paragraph 7.4.1.2.

BiForm's FORM 140 profile can be used on specifically engineered decks with a maximum serviceability live load of 5kPa and a maximum point load of 1.8kN provided the deck span does not exceed 450mm and the decking is continuous over a minimum of two spans.

In heavy public access areas, it is recommended that the decking boards are laid at right angles to the main direction of pedestrian traffic. Minimum ground clearance of no less than 300mm over unpaved ground and 50mm minimum over waterproof membrane and balconies. Overhang of the support framing, on the long edge of the board must not exceed 10mm for FORM 130 and 20mm for ForestBoard and FORM 140. Overhang on the end of all three boards is 100mm.

3.4 Burrett and Associates Ltd calculations demonstrate;

All six profiles are suitable for use on decks designed for Domestic and Residential floor loads of 2kPa or 1.8KN as required by AS/NZS 1170-1 and NZS3604 Paragraph 7.4.1.2.

The approved loading and support conditions for the various decking profiles, as demonstrated by the calculations, are summarised in Table 1 below.

Table 1 Decking Board Type	**Max Live Loading** Note that point loads are assumed to be spread between at least two boards.	**Max single joist centres (mm).** Based on 45mm wide joists. Refer to tables for joist sizing and spans.	**Max double joist centres (mm).** Based on 2x45mm wide joists. Seek engineering advice for joist sizing and spans.
FORM 130	2kPa, 1.8KN	400	445
	3kPa, 2.7KN	300	345
	4kPa, 2.7KN	300	345
ForestBoard	2kPa, 1.8KN	400	445
	3kPa, 2.7KN	400	445
	4kPa, 2.7KN	400	445
	4kPa, 4.5KN	300	345
ForestBoard SLIM	4kPa, 4.5KN	225	270
FORM 140	2kPa, 1.8KN	400	445
	3kPa, 2.7KN	400	445
	4kPa, 2.7KN	400	445
ULTRA BOARD	5kPa, 13KN Light vehicle loading to AS/NZS 1170	400	445
ULTRA BOARD SLIM	5kPa, 13KN Light vehicle loading to AS/NZS 1170	300	345

4. Building Regulations

Compliance with the New Zealand Building Code.

Burrett and Associates Ltd consider that if Biform FORM 130, FORM 140, ForestBoard, ForestBoard Slim, Ultra Board and Ultra Board Slim are manufactured, designed, used, installed and maintained in accordance with the following documents available on the Biform ltd website;

- Biform Installation Guidelines
- BRANZ Appraisal No. 680(2015) Amended 2025
- Biform PTS Version 8. October 2026
- Biform Care and Maintenance Guide

they provide Alternate Solutions in terms of the New Zealand Building Code that comply with the provisions of the following performance criteria.

- Clause B1 Structure, B1.3.1, B1.3.2, B1 3.3 (a), (b) and (j). (Compliance demonstrated by Branz Appraisal No. 680(2015) Amended 2025, testing, calculation not to B1/VM1 structure, and calculation in accordance with B1/VM1 structure).
- Clause B2 Durability, B2.3.1(b) (Compliance demonstrated by Branz Appraisal No. 680(2015) Amended 2025)
- Clause CV/M2 – FIRE SAFETY: Biform Solid Composite Decking FORM 130 and FORM 140 achieves a critical radiant flux of 5.7 kW/m² and the ForestBoard achieves a critical radiant flux of 5.4 kW/m² when tested in accordance with ISO 9239 Part 1. This exceeds the minimum critical radiant flux requirements specified in the NZBC. Refer to NZBC Acceptable Solutions C/AS1 - C/AS2 for further information.
- Clause D1 Access, based on CSIRO Oil-Wet Ramp testing, BiForm Solid Composite Decking achieves a slip resistance rating of R11.
- Clause F2 Hazardous Building Materials: Performance F2.3.1. BiForm Solid Composite Decking meets this requirement and will not present a health hazard to people.

All technical documentation quoted, (BRANZ Appraisal, Slip Resistance Testing, Safety Data Sheet and Critical Radiant Flux Testing) is available on the Biform Ltd website, and is also on EBOSS and Productspec.

5. Design Instructions

5.1 General design guidance can be found on the Biform website.

www.biform.co.nz

New Zealand specific design shall be in accordance with the relevant sections of the New Zealand Building Code.

5.2 Timber deck structure to support the Biform decking must be designed using the relevant sections of the New Zealand Building Code (Verification methods B1/VM1 and VM2, or the Acceptable Solution B1/AS1-NZS3604:2011), subject to the following additional requirements.

5.2.1 Timber joist size and spans

Specific design joist sizes and blocking requirements are given in the Tables 2-14 below. The joist sizes and spans for the 2kPa or 1.8KN loads match NZS3604. All joists are required to be supported laterally by blocking at S – Supports , M – Midspan or TH – Third points. Blocking to consist of full depth solid blocking between all joists.

The tables assume the Forestboard, Forestboard Slim, Ultra Board and Ultra Board Slim are screw fixed only and other boards are either screwed or fixed with clips.

All joists are 'wet in service'.

Where joists are not at 90 degrees to the decking direction, support must be provided to the decking at the centres stated in this PTS. This support can be achieved by closing up the joist spacing to suit, or by the provision of blocking between joists. Blocking and its end fixings are to be designed to support the applicable point live loads in each case.

5.2.2 Decking Boards

To achieve the stated load capacity FORM 130, FORM 140, ForestBoard and ForestBoard Slim must be continuous over at least two spans.

To achieve the stated load capacity Ultra Board must be continuous over at least three spans. Where this is not possible close up the joist spacing to maximum 300mm centres for single joists or 345 for double joists.

To achieve the stated load capacity Ultra Board Slim must be continuous over at least three spans.

Table 2 - BIFORM FORM 130
Joist centres **300mm**

DECK LOADING: **3kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **2.7KN** CONCENTRATED LOAD

JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	0.9m	S only
140x45 SG8	2.0m	S only
190x45 SG8	3.25m	S and M
240x45 SG8	4.1m	S and TH
290x45 SG8	4.9m	S and TH

Table 3 - BIFORM FORM 130
Joist centres **300mm**

DECK LOADING: **4kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **2.7KN** CONCENTRATED LOAD

JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	0.9m	S only
140x45 SG8	2.0m	S only
190x45 SG8	2.85m	S and M
240x45 SG8	3.6m	S and TH
290x45 SG8	4.3m	S and TH

Table 4 - BIFORM Form 130
Joist centres – **400mm**

DECK LOADING: **2kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **1.8KN** CONCENTRATED LOAD

JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	1.6m	S only
140x45 SG8	2.5m	S only
190x45 SG8	3.4m	S and M
240x45 SG8	4.3m	S and TH
290x45 SG8	5.2m	S and TH

Table 5 - **BIFORM ForestBoard** Joist centres – **400mm**		
DECK LOADING: **2kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **1.8KN** CONCENTRATED LOAD		
JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	1.6m	S only
140x45 SG8	2.5m	S only
190x45 SG8	3.4m	S and M
240x45 SG8	4.3m	S and M
290x45 SG8	5.2m	S and M

Table 6 - **BIFORM ForestBoard** Joist centres – **400mm**		
DECK LOADING: **3kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **2.7KN** CONCENTRATED LOAD		
JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	0.9m	S only
140x45 SG8	1.95m	S only
190x45 SG8	2.85m	S and M
240x45 SG8	3.6m	S and M
290x45 SG8	4.35m	S and M

Table 7 - **BIFORM ForestBoard** Joist centres – **400mm**		
DECK LOADING: 4**kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **2.7KN** CONCENTRATED LOAD		
JOIST SIZE (Wet in Service)	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	0.9m	S only
140x45 SG8	1.85m	S only
190x45 SG8	2.5m	S and M
240x45 SG8	3.15m	S and M
290x45 SG8	3.8m	S and M

Table 8 - **BIFORM FORM 140** Joist centres **400mm**		
DECK LOADING: **2kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **1.8KN** CONCENTRATED LOAD		
JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	1.6m	S only
140x45 SG8	2.5m	S only
190x45 SG8	3.4m	S and M
240x45 SG8	4.3m	S and TH
290x45 SG8	5.2m	S and TH

Table 9 - -**BIFORM FORM 140** Joist centres – **400mm**		
DECK LOADING: **3kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **2.7KN** CONCENTRATED LOAD		
JOIST SIZE	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	0.9m	S only
140x45 SG8	1.95m	S only
190x45 SG8	2.85m	S and M
240x45 SG8	3.6m	S and TH
290x45 SG8	4.35m	S and TH

Table 10 - **BIFORM FORM 140** Joist centres – **400mm**		
DECK LOADING: **4kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **2.7KN** CONCENTRATED LOAD		
JOIST SIZE (Wet in Service)	JOIST SPAN	BLOCKING (S, M, TH)
90x45 SG8	0.9m	S only
140x45 SG8	1.85m	S only
190x45 SG8	2.5m	S and M
240x45 SG8	3.15m	S and TH
290x45 SG8	3.8m	S and TH

Table 11 - **ULTRA BOARD** Joist centres – **400mm**		
DECK LOADING: **5kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **13KN** LIGHT VEHICLE CONCENTRATED LOAD		
JOIST SIZE (Wet in Service)	JOIST SPAN	BLOCKING (S, M, TH)
190x45 SG8	0.8m	S only
240x45 SG8	1.3m	S only
290x45 SG8	1.5m	S only

Table 12 - **BIFORM ULTRA BOARD SLIM** Joist centres – **300mm**		
DECK LOADING: **5kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **13KN** LIGHT VEHICLE CONCENTRATED LOAD		
JOIST SIZE (Wet in Service)	JOIST SPAN	BLOCKING (S, M, TH)
190x45 SG8	0.8m	S only
240x45 SG8	1.3m	S only
290x45 SG8	1.9m	S only

Table 13 - **BIFORM ForestBoard SLIM** Joist centres – **225mm**		
DECK LOADING: **4kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **4.5KN** CONCENTRATED LOAD		
JOIST SIZE (Wet in Service)	JOIST SPAN	BLOCKING (S, M, TH)
140x45 SG8	1.25m	S only
190x45 SG8	2.25m	S only
240x45 SG8	3.45m	S and M
290x45 SG8	4.85m	S and M

Table 14 - **BIFORM ForestBoard** Joist centres – **300mm**		
DECK LOADING: **4kPa** LIVE LOAD UNIFORMLY DISTRIBUTED OR **4.5KN** CONCENTRATED LOAD		
JOIST SIZE (Wet in Service)	JOIST SPAN	BLOCKING (S, M, TH)
140x45 SG8	1.25m	S only
190x45 SG8	2.25m	S only
240x45 SG8	3.5m	S and M
290x45 SG8	4.3m	S and M

5.2.2 Supporting structure

Deck bearers, foundations and deck bracing are to be sized to support the design loading. Where loading is 2kPa/1.8KN NZS3604:2011 is applicable.

Where bracing is required by the New Zealand Building Code, a separate bracing system must be provided.

Where Biform boards are fixed with clips they cannot be relied upon to transfer bracing loads in the deck plane. Therefore contrary to clause 7.4.2.2 of NZS 3604:2011, decks that project less then 2m from the building, and that support Biform composite decking boards fixed with clips, shall have subfloor bracing or strap bracing in the plane of the decking.

5.2.3 Additional Conditions

Where Biform boards are required to support point loads not covered by the scope of the BRANZ Appraisal No. 680(2015) (amended 2025) or the tables included in this technical statement, their suitability must be assessed by a CPEng structural engineer.

6. Construction and Installation

Available at https://biform.co.nz/resources/certification-documents/#c1481

7. Maintenance Requirements

Available at https://biform.co.nz/resources/care-maintanance

8. Warranty Information

Warranty Information – 25 year limited liability warranty

Details available at https://biform.co.nz/resources/certification-documents/

9. Quality Assurance

ISO 9001 (Compliance demonstrated by Branz Appraisal No. 680(2015) Amended 2025).

10. Product Support

Available at:

BIFORM LTD
PO Box 13842, Onehunga,
Auckland 1643

Phone 0800449274

Email info@biform.co.nz

11. Product Technical Statement Validity

This product technical statement is valid until further notice, subject to the following:

11.1 That this product technical statement relates only to the product described in this statement, shall be read as a whole together with the referenced documents, and is applicable only in New Zealand.

11.2 That Biform Ltd undertakes to have the product technical statement reviewed by Burrett and Associates Ltd when;

- changes are made to the applicable parts of the New Zealand Building Code, and at a minimum at five yearly intervals.
- any change is made to the product, quality assurance processes, or the supporting documentation referred to in the product technical statement.
- the BRANZ Appraisal No. 680(2015) Amended 2025, Test Report No. 161213008SHF-BP-1 (2017-02-09), Static Bending Test Results dated 2016-12-06, 2026-03-19, 2026-08-10 and 2026-07-17 as included in the Burrett and Associates Ltd supporting calculations are modified or are no longer valid.

12. Disclaimer

The information contained in this document is current as at October 2026 and Burrett and Associates Ltd assumes no responsibility for:

a) the nature of individual examples of, batches of, or individual installations of the product,
b) methods of installation and workmanship,
c) any guarantee or warranty offered by Biform Ltd.

13. Signature

On Behalf of Burrett and Associates Ltd



Martin Sporli
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