



CERTIFICATE OF CONFORMITY

This is to certify that
UNI Flexible Air Barrier



Product Description

Flexible Air Barrier.

Certificate Holder



MASONS
Designed Smart, Built Tough.

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Certification Body

CertMark International Pty Ltd
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JAS-ANZ Accreditation No. Z4450210AK
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Complies with the New Zealand Building Code:

1. B2.3.1(a) and B2.3.2(a) - Durability
2. E2.3.5 - External Moisture
3. F2.3.1(b) - Hazardous Building Materials

Product Purpose or Use

UNI Flexible Air Barrier is a non-woven, water resistant, breathable synthetic Flexible Air Barrier, designed to provide temporary protection from weather conditions and UV exposure to timber framing without the installation of the cladding, which allows for the continuation of internal work on the house for 90 days after installation.

Subject to the following Conditions & Limitations:

- a. Must be installed in accordance with E2/AS1, Clauses 9.1.5 and 9.1.7.
- b. Building designers are responsible for the building design and for the incorporation of UNI Flexible Air Barrier into their design in accordance with the declared properties and the instructions of the [UNI Flexible Air Barrier Installation Guide V2 August 2018](#).
- c. Only to be installed by a suitably licenced tradesperson or licensed building practitioner in accordance with [UNI Flexible Air Barrier Installation Guide V2 August 2018](#).
- d. This certification relates only to the clauses of the NZBC as contained herein, consequently, any clauses not included in this Certificate are outside the scope of the CodeMark Certification. Excluded clauses are to be addressed on an individual project basis.
- e. This certification relates only to the UNI Flexible Air Barrier that is described above and must be read, considered and used as a whole document — it may be misleading and will be incomplete if the document is not read in full.
- f. The Certificate Holder must maintain compliance with the conditions set out in Section 15 of the Building (Product Certification) Regulations 2008.
- g. Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

John Thorpe
CertMark International Pty Ltd

30/08/2018

Date of Issue

CM40179-I01-R01

Certificate Number

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**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HIKINA WHAKATUTUKI

A1 Product or System Specification

UNI Flexible Air Barrier is a 230gsm non-woven breathable composite building wrap. The following tests have been carried out in accordance with NZBC Acceptable Solution E2/AS1 Table 23:

1. Tensile strength, edge tear resistance with AS/NZS 4200:2017;
2. Resistance to water vapour transmission in accordance with ASTM E96;
3. Resistance to water penetration in accordance with AS/NZS 4201.4:1994;
4. Surface water absorbency in accordance with AS/NZS 4201.6:1994;
5. Air resistance to BS 6538.3:1987;
6. Shrinkage in accordance with AS/NZS 4201.3:1994;
7. pH of extract in accordance with AS/NZS 1301.421s:1998; and
8. Beal weathertightness test 112 a modification from AS/NZS 4284:2008 and E2/VM1.

A2 Technical properties

Property	Test Standard	Actual Property Performance
Resistance to Water Penetration	AS/NZS 4201.4:1994 Modified with 150mm head of water 48hrs (normally 24hrs at 20mm)	PASS
Water Absorbency	AS/NZS 4201.6:1994	PASS
Water Vapour (Flow Resistance)	ASTM E96 Water method 23°C, 100% RH inside 50% RH outside	PASS
Shrinkage	AS/NZS 4201.3:1994 shrinkage	PASS
pH of Extract	AS/NZS 1301.421s:1998 extraction	PASS
Air Barrier	Air resistance: 0.1 MN s/m ³	PASS – UNI can be used as an air barrier.
Tensile Strength	(50mm width)	Machine Direction 9.01 kN/m Cross Direction 5.39 kN/m
Edge tear and tensile strength	TAPPI T470 (25mm width)	Edge tear: Machine direction (average) = 452 N Cross direction (average) = 262 N

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A3 Type and Use of Product

In Wall Applications

1. UNI Flexible Air Barrier is designed for use under direct fixed and non-direct fixed wall cladding on timber framed and steel framed buildings.
2. UNI Flexible Air Barrier is manufactured from high quality synthetic spun bonded material with high UV qualities and waterproofing qualities.

Timber Framed buildings

UNI Flexible Air Barrier has been appraised for use on timber framed buildings within the following scope:

1. The scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area; and
2. With absorbent and non-absorbent wall claddings directly fixed to the frame; and
3. With absorbent and non-absorbent wall claddings installed over an 18mm minimum drained cavity; and
4. With masonry veneer in accordance with NZBC Acceptable Solution E2/AS1; and
5. Situated in NZS 3604:2011 wind zones up to and including 'Very high'.

Steel framed buildings

UNI Flexible Air Barrier has been appraised for use on steel framed buildings within the following scope:

1. The scope of limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; with regards to building height and floor plan area; and
2. With absorbent and non-absorbent wall claddings directly fixed to the frame; and,
3. With absorbent and non-absorbent wall claddings installed over an 18mm minimum drained cavity; and,
4. With masonry veneer in accordance with NZBC Acceptable Solution E2/AS1; and,
5. Situated in NZS 3604:2011 wind zones up to and including 'Very high'.

Rigid wall underlays

UNI Flexible Air Barrier has been appraised for use as a flexible wall underlay over rigid wall underlays on timber and steel framed buildings within the following scope:

1. The scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area; and,
2. With absorbent and non-absorbent wall claddings directly fixed to the frame;
3. With absorbent and non-absorbent wall claddings direct fixed to framing and installed over an 18mm minimum drained cavity; and,
4. With masonry veneer in accordance with NZBC Acceptable Solution E2/AS1 for timber framed buildings or specific design for steel framed buildings; and,
5. Situated in NZS 3604:2011 Wind Zones up to and including 'Extra High'.

A4 Installation Requirements

Timber and Steel Framing

1. Studs must be provided at maximum 600mm centres. Dwargs must be fitted flush between the studs at maximum 1200mm centres.
2. UNI Flexible Air Barrier is intended for use as an alternative to conventional building papers which are fixed over timber or steel framed walls in order to limit the entry of wind into building cavities, and to act as a secondary barrier to wind-driven rain.
3. Commencing from installation, UNI Flexible Air Barrier must not be exposed to the weather for more than 90 days. UNI Flexible Air Barrier may be used as a temporary weather protecting sheathing to allow the Insulation and Internal Lining of the building to proceed before the wall cladding is installed.

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4. Temporary weather protection - To achieve temporary weathertightness all joins of UNI Flexible Air Barrier must be sealed using Masons 40 Below Flashing Tape including: the taping of UNI Flexible Air Barrier to the floor slab to close off any potential air or moisture ingress, the roof cladding and soffit linings must be installed, Masons 40 Below Flashing Tape must be installed around all the window and door openings as per Masons 40 Below Flashing Tape technical document and installation guide dated April 2014, and the window and door joinery must be installed complete with head flashings and air seals. The timber wall framing must have a maximum moisture content as specified by the internal lining system at the time of the insulation installation and internal lining application.
5. In cavity installations, where the cavity battens are installed at greater than 450mm centres, UNI Flexible Air Barrier must be supported between the battens to prevent the underlay bulging into the cavity space when bulk insulation is installed in the wall frame cavity in accordance with the requirements of NZBC Acceptable Solution E2/AS1.

Masonry Veneer

1. Masonry veneer on timber framed buildings must be in accordance with NZBC Acceptable Solution E2/AS1. Masonry veneer on steel framed buildings must be subject to specific design.
2. Stucco Plaster - UNI Flexible Air Barrier is suitable for use as a non-rigid backing material for stucco plaster in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.3.5.1.
3. The underlay must be supported with 75mm galvanized mesh or plastic tape or wire at 150mm centres run across the cavity battens to limit deflection to a maximum of 5mm.
4. UNI Flexible Air Barrier may also be used as a slip layer over rigid backings for stucco plaster in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.3.3.1(b).

A5 Other Relevant Information

Durability	UNI Flexible Air Barrier meets code compliance with NZBC Clause B2.3.1(a), not less than 50 years for building underlays used where the cladding durability requirement or expected serviceable life is not less than 50 years, e.g. behind masonry veneer, and code compliance with NZBC Clause as well as B2.3.2(a).
Prevention of Fire Occurring	UNI Flexible Air Barrier must be separated from fireplaces, heating appliances, flues and chimneys in accordance with the requirements of NZBC Acceptable Solutions C/AS1 to C/AS6, Paragraph 7.5.9 for the protection of combustible materials.
Serviceable Life	Provided it is not exposed to the weather or ultra-violet light for a total of more than 90 days, and provided the exterior cladding is maintained in accordance with the cladding Manufacturer's instructions and the cladding remains weather resistant, UNI Flexible Air Barrier is expected to have a serviceable life equal to that of the cladding.
External Moisture	UNI Flexible Air Barrier must be used behind claddings that meet the requirements of the NZBC, such as those covered by NZBC Acceptable Solution E2/AS1. UNI Flexible Air Barrier, when installed in accordance with the Technical Literature and this Evaluation Report will assist in the total cladding systems compliance with NZBC Clause E2.
Hazardous Building Materials	UNI Flexible Air Barrier meets the performance requirements of F2.3.1(b) and will not present a health hazard to people.

B1 Basis of CodeMark Certification

The UNI Flexible Air Barrier has been evaluated in accordance with the requirements of the Building (Product Certification) Regulations 2008 Clause 8. CMI has followed procedures for certifying the UNI Flexible Air Barrier that are based on evidence established by:

- Testing of the UNI Flexible Air Barrier;
- Assessing a quality plan for the UNI Flexible Air Barrier that conforms to ISO 10005 and the CodeMark scheme rules;
- By reviewing testing of samples supplied, to ascertain whether or not the product meets the performance requirements specified on this certificate; and
- Conducting site audits of the factory to verify compliance of the UNI Flexible Air Barrier.

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B2 Sources of Information

- Testing from an IANZ accredited body;
- Technical opinion from a testing body;
- Review of technical literature;
- NZBC Acceptable Solution E2/AS1;
- NZS 3604:2011;
- AS/NZS 4200:2017;
- ASTM E96;
- AS/NZS 4201.3:1994;
- AS/NZS 4201.4:1994;
- AS/NZS 4201.6:1994;
- BS 6538.3:1987;
- AS/NZS 1301.421s:1998;
- AS/NZS 4284:2008; and
- E2/VM1.



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