



UNI

Flexible Air Barrier



SPECIFICATION

PRODUCT DESCRIPTION

UNI is a Flexible Air Barrier (FAB®) that allows work to continue on the inside of the building without waiting for the cladding to be complete. This is due to UNI's unique reinforcing and waterproof features.

PHYSICAL PROPERTIES

- UNI is a 230gsm non-woven breathable synthetic flexible air barrier, reinforced by a fibreglass scrim.
- UNI is water resistant and 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.
- UNI has passed a water head test at 150mm at 48 hours! vs normal building wraps which are tested to a 20mm head of water at 24 hours.

The following tests have been carried out in accordance with NZBC Acceptable Solution E2/AS1 Table 23:

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

COMPATIBILITY

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 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 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; and
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 building or specific design for steel framed buildings; and,
5. Situated in NZS 3604:2011 wind zones up to and including 'Extra high'.



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INSTALLATION

This installation manual is to be read in conjunction with the Certmark UNI assessment brief.

General Instructions

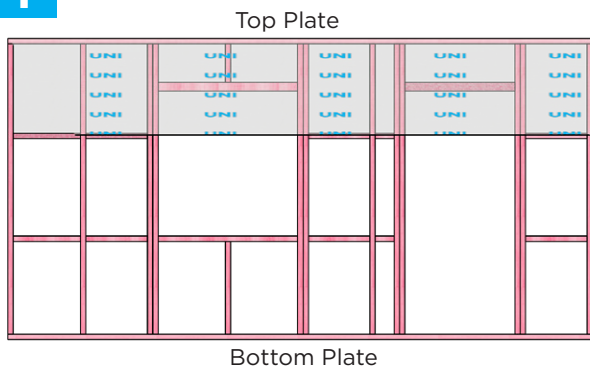
- Fix with the printed side out.
- Run the wrap horizontally.
- Pull taut over the framing before fixing.
- Only to be fixed with Masons UNI Fasteners either with a gun or hammer.
- Be lapped not less than 75mm at horizontal joints; Have upper sheets lapped over lower sheets to ensure that direction of laps will allow water to be shed to outside of the wall underlay.
- Be lapped not less than 150mm over studs at vertical joints.
- Extend 50mm below bottom plate or bearer



Tools Required

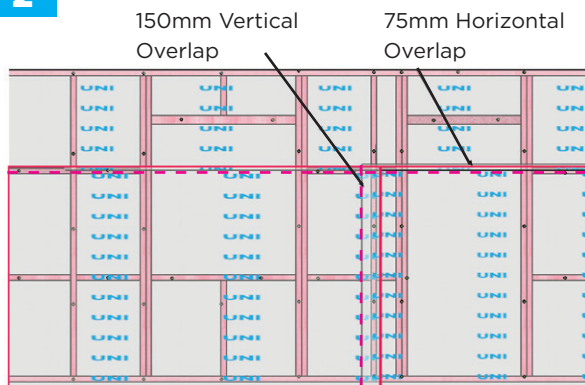
- Masons UNI Fasteners
- Hammer or Fastener Gun
- Masons 40 BELOW - Flashing Tape
 - 75mm; for seams of overlaps
 - 150m; for window flashings
- Cutting Knife

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- Run a 600mm UNI soffit strip taut along the top and over the top plate. Secure with UNI Fasteners at 600mm centres.

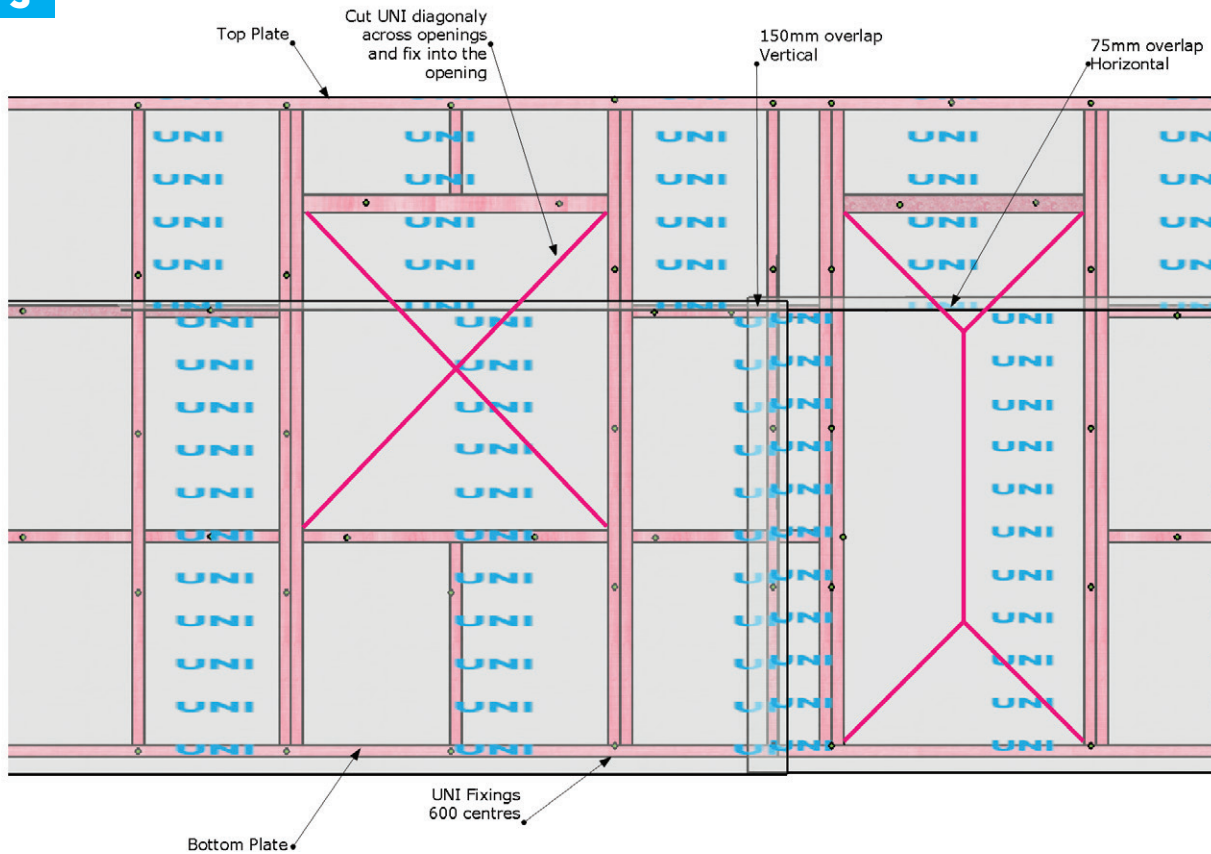
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- Run UNI horizontally extend from the upper-side of the top plate to the under-side of the bearers or wall plates supporting ground floor joists, or a minimum of **50mm below bottom plates** on concrete slabs.
- Horizontal laps must be no less than 75 mm wide and require to be taped off with Masons 75mm **40 BELOW** - Window Flashing Tape.
- End laps must be made over stud framing, be no less than 150 mm wide and must be fully sealed and taped off using Masons 40 below self-adhesive window tape.



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- **Uni Nail & Screw washers** - It is important to secure UNI with masons UNI 32mm Nail/washer fasteners as they rapidly increase the holding power of UNI at 600mm centres over normal 8-10mm staples. For steel frame use UNI washers with either a Phillips or square drive self-drilling screw.
- **Installing cavity battens** - When installing timber cavity battens using UNI fasteners you must keep the batten nail a minimum of 100mm away from the UNI fastener.
- **Brick Veneer construction** - Masons brick ties have been subjected to the BEAL Modified E2/VM1 test with UNI as a system therefore Masons brick ties can only be used over the top of UNI.
- UNI when installed taught will assist in restraining from bulging into the drained cavity due to the high strength reinforced core, however should excessive bulging occur the UNI must be restrained from bulging into the drained cavity in accordance with E2/AS1 Masons wrap strap can be used to assist with this, any penetration to UNI with staples must be stapled over the top of Masons 40 below flashing to provide moisture seal ability around the staple.
- **Joinery Openings** - The wall underlay should be run over openings and left covered until windows and doors are ready to be installed.
- Openings are formed in the membrane by cutting diagonal from each corner of the penetration. The flaps of the cut membrane must be folded inside the opening and stapled to the penetration framing. Excess underlay may be cut off flush with the internal face of the wall frame.
- **Penetrations** - Pipe or Service penetrations must be sealed/flashed immediately.
- UNI Flexible air barrier can be added as a second layer over head flashings in accordance with the requirements of Acceptable Solution E2/AS1, Paragraph 9.1.7(e).

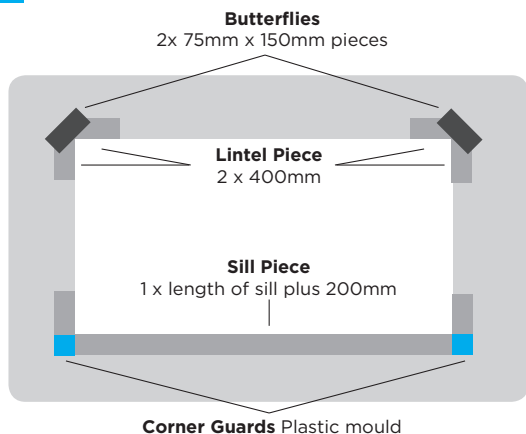


View UNI's installation video online
by clicking the QR code or
visit masons.nz

IMPORTANT: consult the [UNI on-site checklist](#) directly after application. The checklist must be completed as part of the product warranty. This includes daily UNI inspections by the site supervisor.



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- Masons 40 BELOW - Window Flashing Tape is exclusively to be used with UNI Flexible air barrier
- Particular attention must be paid to the installation of the sill and jam tapes around window and door openings to ensure all exposed timber wall framing in the opening is protected.
- Refer to the 40 Below Product installation instructions for more details

Repairs & Replacement

It is important that the site foreman checks UNI daily for damage/tears to UNI. Any damaged areas of UNI Flexible air barrier, such as tears, holes or gaps around service penetrations, must be repaired. Damaged areas can be repaired by covering with new material lapping the damaged area by at least 150 mm and taping using Masons 40 below flashing tape, or by taping small tears using Masons 40 below flashing tape. Masons UNI is not to be exposed to the weather or ultra-violet light for a total of more than 90 days. After 90 days the product will need to be replaced otherwise the warranty is void.

Handling & Storage

Masons UNI whether on or off site should

- Be stored on end under a cover, in a clean and dry area
- Do not crush the rolls
- The rolls must be protected from damage
- When fixing the product in windy conditions, care must be taken due to the large sail area created by wide roll widths.

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 B2.3.1 (b), 15 years for building underlays used where the cladding durability requirement is 15 years; as well as B2.3.2.

STORAGE

Masons Wrap whether on or off site should

- Be stored out of direct sunlight; on end under a cover, in a clean and dry area.
- Do not crush the rolls.
- The rolls must be protected from damage.

UNI Flexible Air Barrier

ON-SITE Checklist



Date: _____

Consent # _____ (If known)

Owner/Applicant: _____

Architect/Engineer: _____

Consent Address: _____

Name of Builder/Installer: _____

- | | |
|--|----------|
| 1. Framing installed as per designer's drawings | YES / NO |
| 2. UNI Flexible Air Barrier installed with all seams and edges sealed against moisture and air ingress as per the UNI Technical Manual | YES / NO |
| 3. All pipe and service penetrations sealed as per UNI Technical Manual | YES / NO |
| 4. Are fixing caps, staples and or screws installed as per UNI Technical Manual | YES / NO |
| 5. Battens installed as per UNI Technical Manual | YES / NO |
| 6. All joinery flashings and air sealing carried out as per manufacturers Specifications | YES / NO |
| 7. Has the underlay been exposed to the elements for more than 90 days | YES / NO |
| 8. Any tears or penetrations been repaired as per UNI Technical Manual | YES / NO |
| 10. Checked daily by site supervisor | YES / NO |

Name of LBP/Builder: _____

Signature of LBP/Builder" _____

Comments: _____

