DuPont™ Tyvek® HomeWrap® Installation Guide - Australia

DuPont™ Tyvek® HomeWrap® is a flexible wall underlay designed for use behind cladding systems on timber and steel framed buildings.

Tyvek® HomeWrap® is a fully synthetic non-woven high density polyethylene homogenous sheet, manufactured using a spun-bond process and specifically treated to provide high water resistance, high water vapour permeability and high air barrier technical properties.

Tyvek® HomeWrap® has been designed for use as a wall underlay behind cladding systems in residential and commercial timber and steel framed buildings as a means to provide the building with a secondary weather barrier against water ingress, and provide air barrier properties to improve effectiveness of bulk insulation. Tyvek® HomeWrap® has a high water vapour permeability to assist in managing moisture in the wall cavity.

Installation of Tyvek® HomeWrap® must be carried out by competent tradesperson with an understanding of permeable wall sarking installation. Installation must be carried out in accordance to this document and other relevant technical literature as published by DuPont™. When Tyvek® HomeWrap is installed following the instructions in this installation guide, compliance with AS/NZS4200.2 will be met.

- Always install wall sarking prior to cladding or window installation.
- Ensure that Tyvek® HomeWrap® is pulled taut and fixed to steel or timber framing with galvanised clouts, staples or self-taping screws at maximum 300mm centres.
- Run the product horizontally across the frames, leaving coverage of both the top plate and bottom plate.
- For horizontal laps, ensure there is a minimum of 150mm laps, and for vertical laps, ensure minimum of 150mm lap beyond a full stud span. Always install the underlay in a shingle fashion, ensuring the top layer is always over the lower layer. If vertical laps are taped, lap can be reduced to 50mm.
- Position laps over frame members.
- In a drained cavity situation, where studs are spaced greater than 450mm, support the sarking with polypropylene strapping to prevent the insulation from pushing the Tyvek® HomeWrap® against the back face of the cladding.
- Avoid leaving the wall sarking exposed beyond the cladding or within 100mm of finished ground level to prevent wicking of moisture.
- Repair any rips or tears with DuPont™ Tyvek® Tape.
- Behind masonry brick veneer, ensure that the brick ties are fastened into the face of the studs without ripping or tearing the wall sarking.
- Tyvek® HomeWrap® must not be exposed to the elements beyond 120 days.
- Tyvek® HomeWrap® must be separated from flues, chimneys and fireplaces minimum of 50mm and in accordance with the requirements of BCA for the protection of combustible materials.
- Allow any LOSP (light organic solvent preservative) to flash off for 2 weeks prior to installation of the Tyvek® HomeWrap®.
- Tyvek® HomeWrap® cannot be used as a roof sarking.
- When Tyvek® HomeWrap is installed in an external wall, the product must be located on the exterior side of the primary insulation layer of wall assemblies that form part of the external envelope of a building. This is to ensure compliance with Clause 3.8.7.2 (a) (iv) of the NCC – 2019 Volume 2.
- Optional best practice–
  - When installing window flashing tape; position the wall sarking over openings, and cut out window hole at 45° from each corner. Wrap into opening and stable or tape onto inside face of the framing. Finish with DuPont™ Flashing Tape or DuPont™ FlexWrap® along the bottom sill and up 200mm each vertical face. Add 300mm vertical and horizontal pieces in both top corners, positioning the flashing tape 150mm horizontal, and 150mm vertical.
  - Tape vertical and horizontal laps with DuPont™ Tyvek® Tape to maintain a good air barrier seal.
  - Seal around all penetrations with DuPont™ flashing tapes or DuPont silicon or similar compatible tapes.
  - Pre-prime cedar and other timbers claddings prior to installation over Tyvek® HomeWrap®
  - A second layer of Tyvek® HomeWrap®, installed shingle style, can be added above window and door head flashings.

Technical Properties

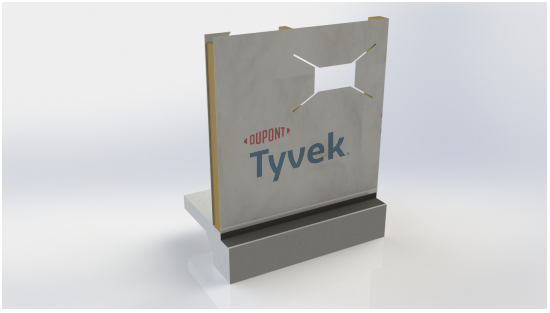
Technical Property National Construction Code (NCC) and AS/NZS4200.1:2017	Test Method	Requirements	Tyvek® HomeWrap® DuPont 1055B
Duty Classification	Table 1 AS/NZS 4200.1:2017	Light Wall	Light Wall
Vapour Permeance	ASTM E96-B	>0.14µg/N.s (high permeability)	>2.0 µg/N.s
Vapour Resistance	ASTM E96.B	<7.0MN.s/g	<0.5MN.s/g
Vapour Barrier Classification	ASTM E96.B	Low	Low
Emittance	AS/NZS 4201.5	Non-reflective	Non-reflective
Water Control Classification	AS/NZS 4201.4	Water Barrier	Water Barrier
Absorbency	AS/NZS 4201.6	Low	Low
Resistance to Dry De-Lamination	AS/NZ 4201.1	Pass	Pass
Resistance to Wet De-Lamination	AS/NZ 4201.2	Pass	Pass
Shrinkage	AS/NZ 4201.3	<0.5%	<0.1%
Tensile Strength	AS 1301.448		
• Machine Direction (k/Nm)		N/A	4.4kN/m
• Lateral Direction (k/Nm)		N/A	4.7kN/m
Edge Tear Resistance	TAPPI T470		
• Machine Direction (N)		>45N	202N
• Lateral Direction (N)		>45N	223N
Burst Strength	AS2001.2.19	>200 N	284N
Flammability Index	AS/NZ 1530 Part 2	≤ 5	≤ 5
Width			3048mm/2743mm
Length			30.5m/30.5m
Area			93m²/83m²
gsm			61gsm/61gsm
Roll weight			5.8kgs/5.2kgs

Test results shown represent roll averages. Individual results may vary either above or below averages due to normal manufacturing variations while continuing to meet product specifications.

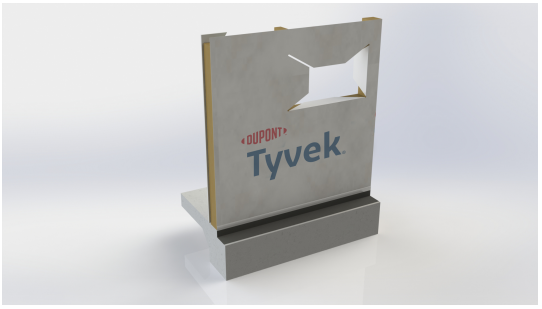
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Product Sheet

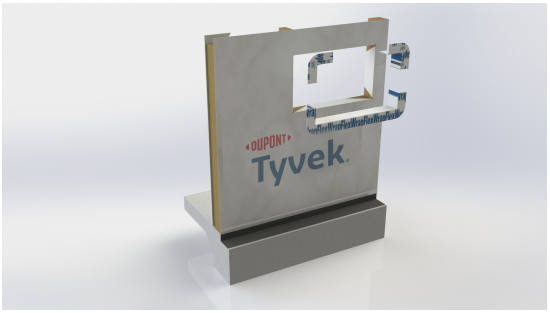
Typical Window Flashing Installation Guide



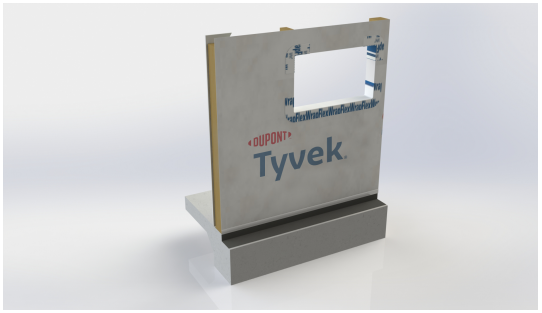
1. Cut the centre out



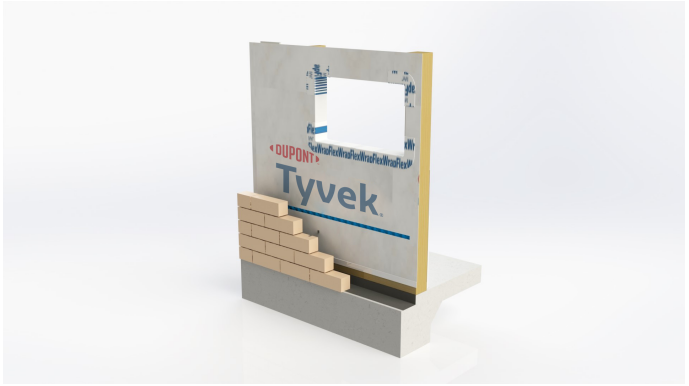
2. Fold in the edges and staple back



3. Cut ann install flashing as shown



4. Completed flashing



Typical brick cavity wall assembly.

For more information about DuPont™ Tyvek® Building Envelope Systems, please visit us at www.Construction.tyvek.com

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Certificate CM40288

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