DRISPACE

Tomorrow's build, today

ProctorPassive

WRAPTITE SA & UV-SA SYSTEM GUIDE

AUGUST 25
VERSION 2

PROCTOR PASSIVE

CodeMark CERTIFIED

Overview

About DriSpace

DriSpace, a division of TCL Hunt, a New Zealand-based company tracing its roots back to 1937, was established in response to the widespread internal moisture issues and air leakage plaguing buildings throughout NZ, resulting in damp and cold homes and buildings.

Driven by a strong determination to combat these challenges, the DriSpace team engaged in close collaboration with industry experts, including VENT NZ and Proctor Group Australia. The result is DriSpace systems delivering unique external airtight envelope solutions, providing an effective and innovative approach to address moisture issues and air leakage in buildings.

About Proctor Passive

Proctor Passive systems are developed by Proctor Group Australia, a recognised expert in membrane systems affiliated with Proctor Group UK. With 50 years of industry service, the A. Proctor Group provides a trusted portfolio.

Proctor Group Australia (PGA), established since 2005, is renowned in the Australian and New Zealand construction industry for its high-performance thermal and acoustic insulation. Specialising in geotextiles and vapour-permeable construction membranes, PGA leverages its 100% Australian ownership to solve challenges through global experience in research and product development. Solutions are tailored to local climates, regulations, and practices. Committed to expansion, PGA aims to enhance its product range in Australia and New Zealand by understanding local customer needs and introducing innovative products and systems from around the globe.

- *Bendigo GovHub, Bendigo*

- *Cere's House, Victoria*

- *Eyre Lane, Sheffield*

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Distributed by DriSpace - a division of TCL Hunt
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Contents

External Airtight Membranes

Why are airtight membranes needed?

As Building Regulations have imposed more stringent energy performance criteria on the building envelope, improvements have often been driven through higher standards of insulation for roofs, walls, windows and floors. In the drive for higher standards, the significance of localised areas of reduced insulation or thermal bridging leading to air leakage has become even more crucial.

Air leakage through cracks, gaps, holes and improperly sealed elements such as doors and windows can cause a significant reduction in the performance of even highly thermally insulated building envelopes.

The two main ways to achieve airtightness in the building envelope are internally or externally, or in other terms, 'inside of the services zone' or 'outside of the services zone'. The use of traditional internal air barriers can be more complex and costly to install, due to the need to accommodate building services such as electrical, lighting, heating and drainage systems. An internal air barrier is only as good as it's installation. If all the service penetrations are not adequately sealed, performance will be compromised.

By moving the air barrier to the external side of the structural frame, external air barrier systems such as Wraptite allow for an almost penetration-free airtight layer, which can be installed faster and more robustly. Far simpler than internal options an external air barrier system like Wraptite will maintain the envelope's integrity, with less building services and structural penetrations to be sealed, and less room for error.

ProctorPassive Wraptite

External Airtight Membranes

Wraptite is a unique external airtight solution, which is not only highly vapour permeable, yet airtight – but also self-adhered to ensure a consistent airtight external seal.

There are two grades of Wraptite self-adhesive airtight membranes:
— Wraptite SA: closed joint cladding applications
— Wraptite UV-SA: for high uv applications e.g. behind open-joint cladding

Moving the air barrier to the outside of the building, away from the 'services zone' means there are far fewer potential penetrations to the air barrier and that there is no requirement for expensive specialist components such as airtight junction boxes, light switches or downlighter hoods.

Our range of Wraptite external air barriers solve the problem of reliably achieving airtightness in buildings, with two robust solutions for windows and openings comprising of either DriFlash Tape or Liquid Flashing options. This new approach saves on both the labour and material costs associated with meeting the demands of modern energy efficiency requirements in both commercial and residential buildings.

Multiple Substrate Compatibility

— Exterior Grade Gypsum
— Fibre Cement Board
— Galvanized Metal
— In-Situ Concrete
— OSB & Plywood
— Precast concrete
— Pre-painted steel
— Rigid Vinyl
— Steel
— CLT
— Aluminium (painted or mill finish)
— Anodised aluminium
— Concrete Block
— Smooth dense EPS & XPS Insulation Board
— Foil faced PIR Insulation Board

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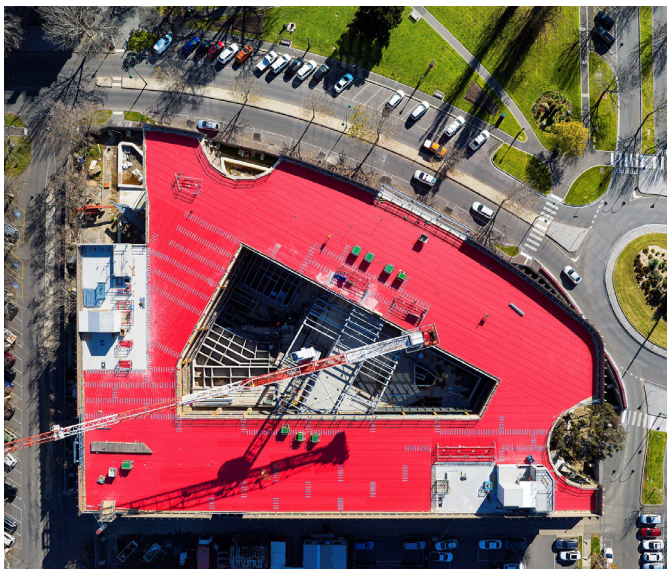
Wraptite SA
for closed joint cladding application

Where a full wall and roof airtight envelope is required, Wraptite SA can be used in both applications. The self-adhered backing not only ensures an airtight seal but resistance at laps against water penetration, dust, air infiltration and wind resistance, making it an excellent choice for this application.

The self-adhered nature of Wraptite SA allows for a simple and fast installation process, minimising the use of additional sealants and tapes, and requiring no speciailist contractors to acheive a robust result. This one-step solution provides both a damage resistant air barrier layer and effective secondary weather protection in one installation process, achieving a wind and watertight envelope more quickly than using traditional methods.

- *Repton Gardens, Wembley Park*



- *Bendigo GovHub, Bendigo*

WRAPTITE SA

- Self-adhering airtight and vapour permeable membrane for wall and roof applications
- CodeMark™ Certified
- Low initial tackiness for ease of installation
- Multiple substrate compatibility
- No primer required on most clean substrates down to -6°C
- Low Flammability Index (FR Index: 1)
- Tear, rip and puncture resistant, reducing install costs
- Zero VOCs, and free of any chemicals on the Red List
- Passive House Institute Certified Component phA

PRODUCT SIZE	
Roll Width	1500mm
Roll Length	50m
Coverage	75m^2

Wraptite UV-SA
for open joint cladding application

Introducing CodeMark™ Certified ProctorPassive Wraptite UV-SA – Setting a New Standard in External Airtight Solutions for Open Joint Cladding applications.

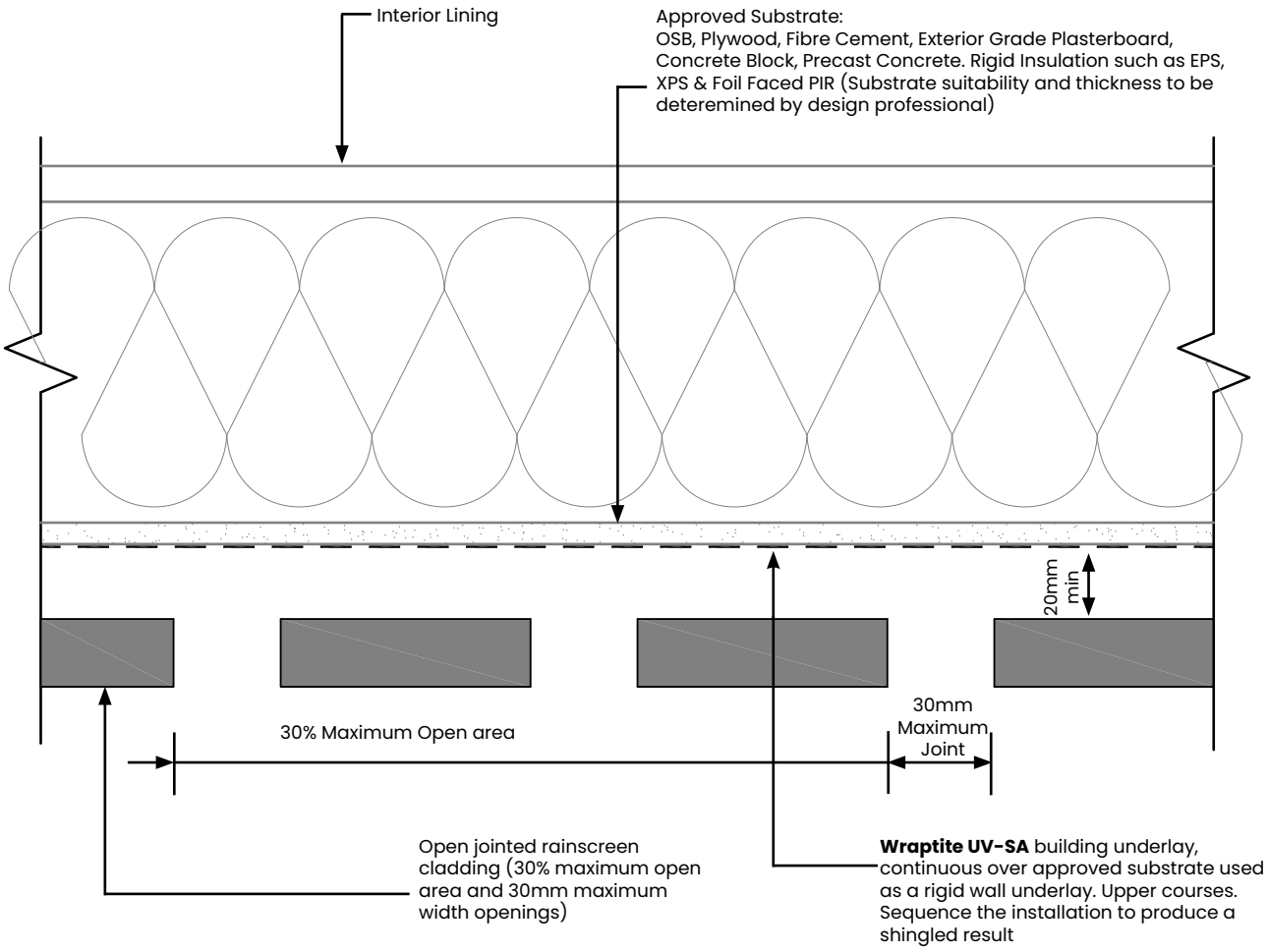
Wraptite UV -SA has exceptional water resistance and UV resistance to allow for a 'shadow' appearance within open rainscreen façades. Manufactured from polyester non-woven textile and a functional UV resistant vapour open coating, with a proprietary acrylic moisture vapour permeable adhesive and silicone coated PET release liner.

Wraptite UV bonds (no mechanical attachment) to multiple substrates for air tightness and ease of installation, negating the requirement for a primer, sealants of tapes. Adhesive curing time is approximately 6hrs to depending on environmental conditions.

Wraptite UV-SA prevents lateral air movement enhancing the buildings thermal performance. With a vapour resistance of 0.67MNs/g vapour permeability in a commercial quality, self-adhered, airtight breathable membrane.

To protect the membrane from mechanical damage, the joint openings in the façade covering have to be less than 30 percent of the area and maximum 30mm wide.

Introducing more openings lead to increased ventilation which means faster drying of trapped moisture.



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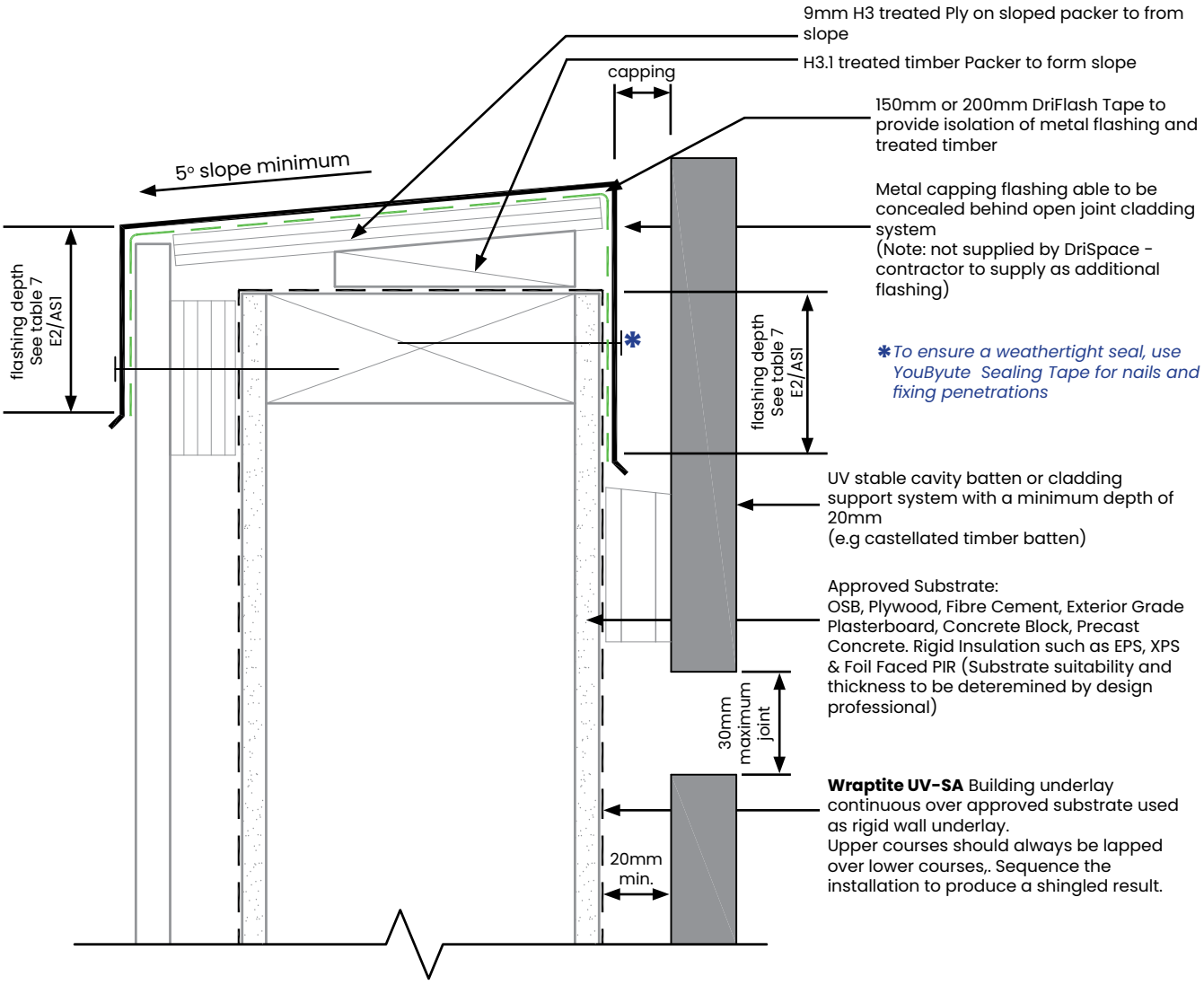
Wraptite UV-SA

Revolutionary self-adhesive membrane that enables open joint cladding on a cavity, over a direct fixed substrate - approved by CodeMark

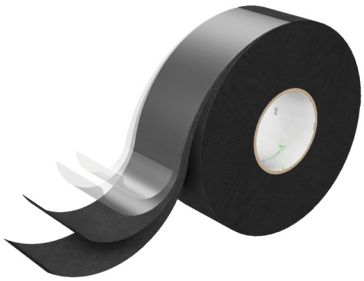


WRAPTITE UV-SA

- Self-adhering
- CodeMark™ Certified
- For prolonged UV exposure or open joint cladding application
- Vapour permeable adhesive layer
- High vapour permeance
- Tough material resists punctures and tears
- Multiple substrate compatibility
- Low VOC's
- Exceptional airtightness

PRODUCT SIZE	
Roll Width	1500mm
Roll Length	50m
Coverage	75m^2

System Accessories & Tape Solutions
Windows and Openings Applications



AVAILABLE SIZES

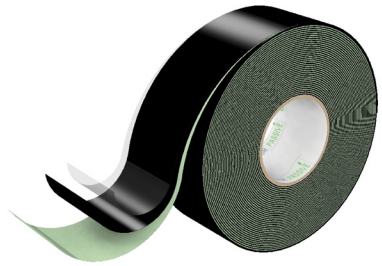
150mm x 25m

200mm x 25m

PROCTOR DRIFLASH TAPE

— Window flashing tape with high vapour permeance
— Suitable for High UV Exposure areas
— No primer required on most clean substrates
— Tough material; resists punctures and tears
— Multiple substrate compatibility
— Wide service temperature range
— Low VOC's
— Initial low tack for adjustability
— Exceptional for airtightness

An ultimate airtight solution for airtight sealing around the windows. DriFlash Tape stands out as a UV-resistant, highly vapour-permeable tape designed with a unique vapour-open acrylic pressure-sensitive adhesive with superior ageing resistnace. With a vapour permeability of 0.67MNs/g, making it the most vapour-permebale sill tape available in NZ. DriFlash Tape is a smart solution for preventing air leakage around openings while allowing trapped water vapour to escape.



AVAILABLE SIZES

80mm x 10m

PROCTOR YOUBYUTE FLEXI TAPE

— Suitable for corner mould applications
— Highly stretchable
— High tack
— Long term water resistance
— High ageing resistance
— Air and water tight
— Low emission of VOC

YouByute Flexi Tape features strong adhesion and is made from highly stretchable PE butyl rubber tape, ensuring lasting water and ageing resistance. Ideal for sealing overlaps in edges, corners, and locations requiring high weathertightness, airtightness, and flexibility in the tape. YouByute Flexi Tape is to be applied at window corners in conjunction with DriFlash tape for optimal performance.

AVAILABLE SIZES

50mm x 20m

PROCTOR YOUBYUTE SEALING TAPE

— High tack
— Long term water resistance
— High ageing resistance
— Compatibility with Proctor Rainscreen (RS-IT) and ProctorPassive Wraptite SA/UV
— Air and water tight
— Low emission of VOC

YouByute Sealing Tape is a water resistant PE butyl rubber tape with high tack, very high ageing resistance, and high tear strength. YouByute Sealing Tape is used for diffusion tight and watertight sealing behind façades and around windows and doors where not exposed to long term UV. The tape is also used for improving nail and screw penetration sealing.

APPROVED WRAPTITE LIQUID FLASHIING

Contact DriSpace for approved Wraptite Liquid Flashing options

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Airtightness Simplified

Airtightness

Air movement is important in the building envelope, both infiltration and exfiltration. We need to control interior conditioned air escaping (whether heated or cooled) and exterior air infiltrating as it puts more pressure on heating or cooling mechanisms internally.

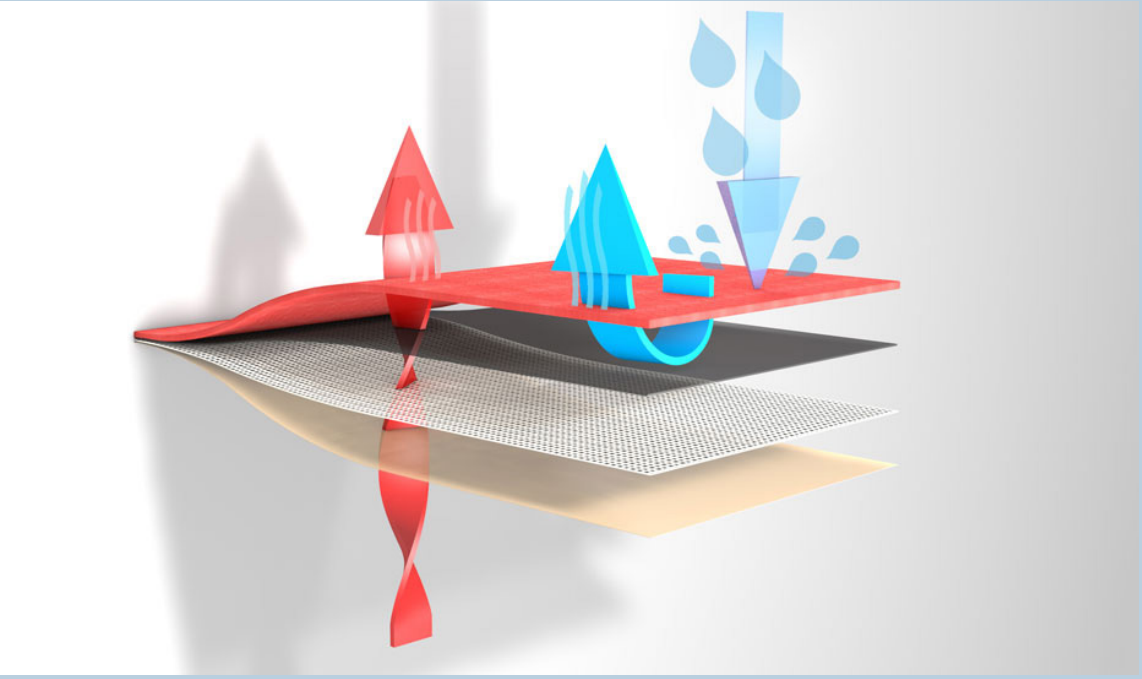
Airtight membranes are an obvious choice in this function, but consideration of local climate and position in the building envelope will determine if these must be vapour open, vapour tight or vapour diffusion variable.

BENEFITS OF AIRTIGHT BUIDLINGS:

- More thermally efficient
- Reduce energy costs
- Lower CO_2 emissions
- Reduce interstitial condensation
- Improved performance of HVAC
- Improved health and comfort for occupants

Vapour Permeance Optimised

Elevate drying performance with uncompromised vapour permeance



Wraptite SA: 0.243MNs/g

Wraptite UV-SA: 0.67MNs/g

High Vapour Permeability = Low Vapour Resistance

Wraptite SA and UV-SA have water vapour resistance values of 0.243 MN s/g respectively.

This allows construction moisture to dry out quickly, reducing the risk of mould, mildew, timber rot, distortion, and metal corrosion.

The rapid drying capability ensures the building fabric remains as healthy as the indoor environment.

High vapour permeability also allows flexibility in the placement of the air barrier, meaning it can be moved outward in the construction without risking trapped moisture.

This minimises the potential for damage from following trades, in turn allowing design air leakage rates to be reduced with increased confidence that pressure test targets will be met.

Appendix
Wraptite SA & UV-SA Technical Properties

PROPERTIES	TEST M ETHOD	WRAPTITE SA RESULT	WRAPTITE UV-SA RESULT
Nominal Thickness	Calibrated deadweight micrometre	0.65mm	0.38mm
Weight (excludes release liner)	Electronic weight scale	240g/m^2 (±10g/m^2)	340 g/m^2 *without release liner*
Installation Temperature	-	-6°C to +60°C	-10°C to +60°C
Service Temperture	-	-40°C to 100°C	-40°C to 100°C
Water Resistance	AS/NZS 4201.4	Water Barrier: High	Water Barrier: High
Air Permeance	AS/NZS 4200.1, ISO 5636-5 EN 12114 ASTN 2178	Air Barrier (≥0.1 MNs/m^3) 0.01 m^3/m^2.h @50Pa 0.000134 L/s/m^2@ 75Pa	Air Barrier (≥ 0.1 MNs/m^3) 0.01m$_3$/m^2.h @50Pa 0.0000134 L/s/m^2@75Pa
Water Vapour Permeance (Resistance)	ASTM E96- Method B: AS4200.1:2017	Permeance: 4.1 µg/N.s Resistance: 0.243 MN s/g	Permeance: 1.5 µg/N.s Resistance: 0.67 MN s/g
Vapour Barrier Classification	AS/NZS 4200.1:2017	Vapour Permeable: Class 4	Vapour Permeable: Class 4
Dimensional Stability	EN 1107-2	MD: - 0.34% CD: + 0.02%	MD: - 0.32% CD: + 0.15%
Resistance to Dry/Wet Delamination	AS/NZS 4201.1, /4201.2	Pass/Pass	Pass/Pass
Flammability Index	AS1530.2*	Pass: 1 (low)*	Pass: 1 (low)*
Reaction to fire	EN 11925-2, BS EN 13501-1	Class B, s1, d0†	Class B, s2, d0†
Tensile Strength	AS 1301.448	MD: 7.9kN/m CD: 4.5kN/m	MD: 7.7 kN/m CD: 5.1kN/m
Edge Tear Resistance	AS/NZS 4200.1:2017	MD: 379N CD: 225N	MD: 409N CD: 275N
Material Type (Fire Performance)	ISO5660	Type A	Type A
UV Exposure	ASTM G154	*Refer to UV Exposure Values on page 13*	

*Tested with release liner removed and adhered to 0.127 mm thick aluminium foil.
†Tested over 12mm Calcium Silicate Board as per BS EN 13238:2010

Appendix
System Tapes Technical Properties

YouByute Flexi Tape

YouByute Flexi tape is a strong adhesive highly stretchable PE butyl rubber tape with lasting water and ageing resistance. Used in roof and wall construction as a tape for permanent sealing of air barriers, roof underlays, building wraps and around doors, windows and pipes. The tape is suitable for sealing overlaps in edges and corners and locations that require a high degree of flexibility in the tape.

PROPERTIES	NOMINAL VALUE
Adhesive Carrier	0.02mm Transparent PE Film
Adhesive Type	Butyl Rubber Adhesive
Total Thickness	2.0mm (uncompressed)
Liner	Silicone Paper - Finger Lift
Peel Adhesion	≥ 10 N/25mm
Tensile Strength	15 N/25mm
Elongation at break	>300%
Temperature Range	-30°C to +80°C
Application Temp.	+5°C to +40°C
Shelf Life	1 year in original packing stored uncompressed protected from UV in a dry location at 5°C to 25°C
Roll Dimensions	80mm x 10m
Packaging	6 rolls per carton

DriFlash Tape

DriFlash Tape is a UV resistant single sided highly vapour permeable and air tight tape made with a unique vapour open acrylicpressure sensitive adhesive with superior ageing resistance, and a useful way of stopping unnecessary air leakage around openings and overlaps.

PROPERTIES	NOMINAL VALUE
Adhesive Carrier	Vapour permeable, airtight and water resistant polyacrylic, coated spun-bond polyester
Adhesive Type	Vapour open polyacrylate adhesive
Nominal Thickness	0.38mm
Peel Adhesion	≥ 0.26 N/mm
Air Permeance	≤ 0.01 $m^3/m^2.h$@ 50Pa
Tensile Strength	15 N/25mm
Temperature Range	-40°C to +100°C
Application Temp.	-10°C to +60°C
UV Exposure	Up to 9 months
Vapour Permeance	1.5 µg/Ns (Resistance 0.67 MNs/g)
AS4200.1 Vapour Barrier Classification	Vapour Permeable: Class 4
Roll Dimensions	150mm x 25m 200mm x 25m

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Appendix
UV Exposure

UV Exposure Values: Max # Days

Wall application

LOCATION	SA (Closed joint face sealed Façade)	UV-SA (Open joint façade with conditions**)	UV-SA (Closed joint face sealed façade)
Auckland	200 days	120 days	270 days
Wellington	200 days	120 days	270 days
Christchurch	200 days	120 days	270 days
Dunedin	240 days	120 days	270 days

Roof application

LOCATION	SA (Closed joint face sealed Façade)	UV-SA (Open joint façade with conditions**)	UV-SA (Closed joint face sealed façade)
Auckland	100 days	120 days	270 days
Wellington	100 days	120 days	270 days
Christchurch	100 days	120 days	270 days
Dunedin	120 days	120 days	270 days

Temporary Exposure Guidance: Best Practice

1. Cover as quickly as possible with the primary water shedding layer to keep maximum exposure to a minimum - ESPECIALLY WHEN USING FOR ROOF APPLICATION.
2. Exposure periods have been calculated based on UK conditions and testing, and converted to accurately reflect UV exposure periods in New Zealand and Australia
3. Vapour and air tightness is expected to remain unchanged during the stated exposure period.
4. Seperate exposure periods for walls and roofs due to orientation and risk.
5. For longer UV exposure times, including open joint façade applications, consider using Wraptite UV-SA.

Notes

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