

VapourTech® RWC Roof Wall Commercial

Product Code: VTRWC

Vapour permeable roof and wall insulation

For use in commercial and residential roofs, facades and wall systems in Climate Zones 2-8.



VapourTech® RWC Roof Wall Commercial is an Air Barrier, Water Barrier and Class 4 Vapour Permeable pliable building membrane. Very high levels of water vapour are allowed to absorb and diffuse through the core and non-woven structure, ensuring that condensation risk is controlled, while outside liquid water cannot penetrate inwards. With remarkably high permeance, Classified as Class 4, Vapour Permeable, VapourTech® RWC Roof Wall Commercial meets the vapour permeance requirements of the NCC 2022 in ABCB Climate Zones 4 to 8 and is suitable for use in ABCB Climate Zones 2-8.

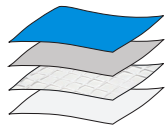
VapourTech® RWC Roof Wall Commercial performs as an all-weather barrier to air, wind driven rain and dust penetration from the outside of the envelope.

VapourTech® RWC Roof Wall Commercial is non-conductive, has excellent UV resistance and is chemically non-reactive, such as corrosive conditions close to coastlines.

- > Class 4 Vapour Permeable
- > Weather Barrier, advanced water, air and vapour control membrane
- > Four-layer construction for high strength, tear, puncture and UV resistance
- > Low Flammability, suitable for all BALs in bushfire-prone areas in Australia
- > Low Flammability and less than 1 mm thick, suitable for DtS Non-combustible constructions, ref NCC C1.9
- > Helps reduce energy consumption and increase occupant health and comfort

Construction

VapourTech® RWC Roof Wall Commercial is a high permeance building membrane made with four-layer construction: two tough outer layers of spun-bonded fabric protecting an inner core of homogenous high permeance film and high strength reinforcing scrim.



- > Non-woven polymer fabric
- > High permeance membrane
- > High strength polymer mesh
- > Non-woven polymer fabric

Application

VapourTech® RWC Roof Wall Commercial can be used in Australian climate zones 2 to 8 as a:

- > Sarking under tile, steel, and slate roofs
- > Wall wrap behind fibre cement, timber, hebel and brick veneer systems in Australian climate zones 2 to 8.

NOTE: For ABCB Climate Zone 1 and north of The Tropic of Capricorn in Climate Zone 2, substitute VapourTech® RWC Roof Wall Commercial with a Class 1 or Class 2 Vapour Barrier such as SilverSark®, SilverSark® HVB or SilverSark® xR.

If installed over battens in roofs, condensation can still occur on the underside of product, install drainage battens to avoid contact and separate the product from the steel roof, pull tight to allow for adequate drainage of pooled or trapped water.

If installed in a wall behind non-absorbent claddings such as steel, provision should be given for adequate drainage of any trapped moisture.

Total System R-Values

(Based on NCC 2019)

Light Weight Cladding

fixed to battens with VapourTech® RWC Roof Wall Commercial + R2.7 fibrous batt

Winter **R_t 2.92**

Summer **R_t 2.77**

Brick Veneer

with VapourTech® RWC Roof Wall Commercial + R2.7 fibrous batt

Winter **R_t 2.93**

Summer **R_t 2.78**

Residential Roof

22° pitch with VapourTech® RWC Roof Wall Commercial

Winter **R_t 0.57**

Summer **R_t 0.74**

Profile Metal Cladding

fixed to battens with VapourTech® RWC Roof Wall Commercial + R2.7 fibrous batt

Winter **R_t 2.82**

Summer **R_t 2.68**

R-values apply to typical conditions for mainland Australian capital cities and have been calculated by an independent consulting engineer, in accordance with AS/NZS 4859.2:2018. These values have been calculated specifically for use under NCC 2019 requirements and may not be valid for compliance with other editions. For detailed design of building systems, readers are advised to seek advice from a qualified engineer, based on actual site conditions.

Material Properties and Classifications

VapourTech® RWC Roof Wall Commercial classifications in accordance with AS/NZS 4200.1:2017

Criteria	Reference	Result	Requirement
Resistance to Dry Delamination	AS/NZS 4201.1:1994	Pass	Pass
Resistance to Wet Delamination	AS/NZS 4201.2:1994	Pass	Pass
Moisture Shrinkage	AS/NZS 4201.3:1994	0.0%	< 0.5%
Folding Endurance	AS 1301.423	Pass	≥ 2.00 MD and ≥ 1.70 LD
Nominal Thickness		0.83 mm	≤1 mm
pH	AS/NZS 1301.421s	5.9	Value
Electrical Conductivity	AS/NZS 4200.1:2017	Non-conductive	Classification
Duty	AS/NZS 4200.1:2017	Medium	Classification
Tensile Strength Machine Direction	AS 1301.448s-91	10.4 kN/m	≥ 9.5 kN/m
Tensile Strength Lateral Direction	AS 1301.448s-91	7.5 kN/m	≥ 6.0 kN/m
Edge Tear Machine Direction	TAPPI T 470 om-89	512 N	Min 45 N
Edge Tear Lateral Direction	TAPPI T 470 om-89	395 N	Min 45 N
Resistance to UV exposure	ASTM G154	Pass	Retain 85% strength in Tensile and water barrier
Surface Water Absorbency	AS/NZS 4201.6	High	≥ 100 g/m ²
Air Control	AS/NZS 4200.1:2017	Air Barrier	Classification
Emittance Classification	AS/NZS 4200.1:2017	IR Non-reflective, IR Non-reflective	Classification
Emittance Category	AS/NZS 4200.1:2017	NN	Category
Vapour Control	ASTM E96, Procedure B	Class 4 Vapour Permeable	Class 1 to 4
Vapour Permeance	ASTM E96, Procedure B	2.144 µg/N·s	Tested at 23°C, 50% RH
Vapour Resistance	ASTM E96, Procedure B	0.5 MN·s/g	Tested at 23°C, 50% RH
Water Vapour Transmission Rate WVTR	ASTM E96, Procedure B	241.422 g/m ² ·24hr	Tested at 23°C, 50% RH
Water Control	AS/NZS 4201.4:1994	Water Barrier	Classification
Flammability Index	AS 1530.2-1993	Low (Index 1)	High (> 5) / Low (≤ 5)

NCC Compliant

VapourTech® RWC Roof Wall Commercial is compliant for use in Australia according to the NCC for Pliable Building Membranes and Sarking-type Materials when correctly specified and installed.

Condensation Control

VapourTech® RWC Roof Wall Commercial complies with *Deemed-to-Satisfy Provisions NCC Volume One, Section F8D3 (1) and (2), [2019:F6.2], Volume Two, Section H4D9 via ABCB Housing Provisions Part 10.8.1, 10.8.3. [2019:3.8.7.2]*

Vapour Permeance: 2.144 µg/N·s

Vapour Resistance: 0.5 MN·s/g

WVTR: 241.422 g/m²·24hr

A detailed hygrothermal analysis is recommended for moisture control in building design.

Fire Performance

Deemed-to-satisfy provisions non-combustible materials

VapourTech® RWC Roof Wall Commercial complies with *Deemed-to-Satisfy Provisions NCC Volume One, Section C2D10(6)(f), [2019:C1.9 (e)(vi)] non-combustible building elements and Volume Two H3D2 (1) (f), [2019: 3.7.1] General Concessions – non-combustible materials.* VapourTech® RWC Roof Wall Commercial is a Sarking-type materials that does not exceed 1 mm in thickness and has a Flammability Index not greater than 5 and therefore may be used where non-combustible materials are required.

Flammability Index

Low (≤5)

Tested in accordance with AS1530.2-1993 - *Methods for fire tests on building materials, components and structures Part 2: Test for flammability of materials.*

Bushfire Attack Levels

Complies with AS 3959-2018 *Construction of buildings in bushfire-prone areas* for use in all BALs.

Seek independent advice regarding the selection of sarking prior to installation in the BAL design.

UV Exposure

Designed to provide full compliance to AS/NZS 4200.1:2017 after 90 days UV exposure before outer cladding is installed providing installation instructions are followed and is sufficiently secured to framing members.

Do not use under translucent sheeting or in situations where the product can absorb reflected UV light leakage for extended periods.

Dimensions

1500 mm x 30 m (45 m²)

Nominal Thickness: 0.83 mm

Handling and Storage

Store this product undercover in a clean, dry place in the pack provided.

Durability may be affected by environmental factors, including chemical and airborne pollutants, if used in industrial or farm buildings.

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Specification Notes

When specifying, state the following:

Product Name: VapourTech® RWC Roof Wall Commercial

The pliable building membrane to be installed shall be VapourTech® RWC Roof Wall Commercial, very high permeance roof sarking and wall wrap and shall be installed in accordance with *AS 4200.2: 2017 Pliable Building Membranes and Underlays, Part 2: Installation*.

Emittance Value: 0.9, 0.9

Emittance Classification: IR Non-Reflective, IR Non-Reflective

Vapour Permeance: 2.144 ug/N.s

Vapour Control Classification: Class 4 Vapour Permeable

Water Control Classification: Water Barrier

Air Control Classification: Air Barrier

Flammability Classification: Low (≤ 5)

Duty Classification: Medium in accordance with *AS/NZS 4200.1:2017*

Please visit our website for VapourTech® RWC Roof Wall Commercial

Limitations of Use. Complete details including installation instructions are available on our website: www.ametalin.com

Performance insulation for a greener world

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