



Certificate of Conformity

Certification Body:



SAI Global Certification Services Pty Limited

(ACN 108 716 669) Trading as "SAI Global"

JAS-ANZ Accreditation No. Z1440295AS

Address: 680 George St, Sydney, NSW 2000

Website: www.saiglobal.com

Certificate Holder:



Kingspan Insulation Pty Ltd

25 O'herns Road, Somerton VIC 3062

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Certificate number: CM20029/2

THIS TO CERTIFY THAT

AIR-CELL Permicav XV™

Type and/or use of product:

Permicav XV™ is a reflective pliable building membrane acting as an Insulation layer, Vapour-permeable membrane & a Reflective barrier. Suitable for use in double brick cavity walls or brick veneer walls.

Description of product:

Permicav XV™ is a fibre-free, thermo reflective insulation comprising a cross-linked, closed-cell core sandwiched with an anti-glare foil facing on one side and a plain foil facing on the other side.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2019

	Volume One		Volume Two
Performance Requirement(s):	FP1.4	Damp and weatherproofing – Weatherproofing	P2.2.2 Damp and weatherproofing – Weatherproofing
Deemed-to-Satisfy Provision(s):	Spec. C1.10 clause 7	Fire Hazard Properties - Other materials	3.7.1.2 Fire properties for materials and construction Fire hazard properties
	F6.2(a)	Condensation Management – Pliable Building Membrane	3.8.7.2(a) Condensation Management – Pliable Building Membrane
	J1.2	Building fabric - Thermal construction — general (must be used in conjunction with other building elements to achieve a total R value outlined in J1.5 'Walls and glazing') subject to state and territory variations	3.12.1.1 Building fabric - Building fabric thermal insulation. (must be used in conjunction with other building elements to achieve a total R value outlined in 3.12.1.4 'External walls') subject to state and territory variations

SAI Global Certification Services

Heather Mahon
Global Head of Technical Services
SAI Global Assurance

Quintin Kleyn – Unrestricted Building Certifier

Date of issue: 09/03/2020

Date of expiry: 09/03/2023



State or territory variation(s):

NSW Spec. C1.10 NSW 7

Fire hazard properties
Other materials

NSW-3.12

ENERGY EFFICIENCY

In New South Wales, Part 3.12 does not apply.
Note: The New South Wales Additions contain energy efficiency measures that apply in New South Wales to support and complement BASIX.

NSW Section J

Section J is replaced with NSW Section J which consists of two (2) subsections:

- J(A) Energy Efficiency – Class 2 buildings & Class 4 part (BASIX)
- J(B) Energy Efficiency – Class 3 & Class 5 to 9 buildings

NT-3.12

In the Northern Territory, Part 3.12 is replaced with BCA 2009 Part 3.12.

NT Section J

For a Class2 building and a Class4 part of a building, Section J is replaced with Section J of BCA 2009. Section J does not apply to Class 3 and 5-9 buildings.

SA-3.12

In South Australia, for the purposes of this Part, a sunroom or the like is deemed to be a Class 10a building and must comply with 3.12.1.6.

QLD Section J

In Queensland, for a Class 2 building, Section J is replaced with Section J of BCA 2009

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

Limitations and conditions:

1. The Product must be installed in accordance with the relevant Kingspan Insulated Panels Product Data Sheets, Installation Guides & Drawings as listed in section A5 of this certificate.
2. Each product must be used for its intended purpose.
3. Permicav XV™ has been classified as a 'Class 3 Vapour permeable' vapour control membrane (VCM). Suitability for use in specific climate zones should be verified by an appropriately qualified person.

Building classification/s:

Volume 1 – Class 2 to Class 9 buildings
Volume 2 – Class 1 and Class 10 buildings

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the certificate holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.



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APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

Refer to Page 1 of this certificate.

A2 Description of product

Refer to Page 1 of this certificate.

A3 Product specification

Product Name	Permicav XV™
Nominal Product Thickness	5.5mm
Product Dimensions (Roll Size)	1350 mm x 22.25 m (30 m ²)
Declared Material R-value	0.15m ² .K/W at 23°C
Emittance	E0.03 – Reflective Face E0.12 – Anti Glare Face
Flammability Index (AS 1530.2)	≤ 5 - Low
Vapour Control (ASTM E96)	Vapour Permeable - Class 3
Electrical Conductivity (AS/NZS 200.1:2017)	Resistance ≤ 10MΩ – Electrically Conductive

A4 Manufacturer and manufacturing plant(s)

Manufacturer - Kingspan Insulation Pty Ltd, 25 O'herns Road, Somerton VIC 3062

Manufactured in Taren Point, NSW, Australia

A5 Installation requirements

Refer to Page 2 of this certificate and the following;

1. AIR-CELL Permicav XV™ Vapour-Permeable Insulation for Walls with Cavities – KIAU0041, Issue 8, Jan 2020

A6 Other relevant technical data

- **Surface Optics Corporation – Test for Infra-Red emissivity. Job No. 4962MP 'Antiglare Foil' (dated 21/03/2018).** This report provides the results of emissivity data measured to ASTM E-408 for Permicav XV (PS055XV).
- **Surface Optics Corporation – Test for Infra-Red emissivity. Job No. 4962MP 'Silver Foil' (dated 24/07/2017).** This report provides the results of emissivity data measured to ASTM E-408 for Permicav XV (PS055XV).

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The product has been assessed as complying with the identified Performance Requirements of the BCA 2016 Amdt 1. This involved a review of product specifications, test reports, installation manuals, and associated documentation.

1. Damp and Weatherproofing Assessment:
 - A2.2(2)(a) / A5.2(1)(d) - A report issued by an Accredited Testing Laboratory – ‘AWTA’ Australian Wool Testing Authority (NATA accreditation No. 985)
 - A2.2(2)(a) / A5.2(1)(e) – A report from an appropriately qualified person – ‘AWTA’ Australian Wool Testing Authority & ‘Acronem Consulting Australia Pty Ltd’
2. Condensation Management assessment:
 - A2.3(2)(a) / A5.2(1)(d) - A report issued by an Accredited Testing Laboratory – ‘AWTA’ Australian Wool Testing Authority (NATA accreditation No. 985)
 - A2.3(2)(a) / A5.2(1)(e) – A report from an appropriately qualified person – ‘Acronem Consulting Australia Pty Ltd’
3. Fire Hazard Properties assessment:
 - A2.3(2)(a) / A5.2(1)(d) - A report issued by an Accredited Testing Laboratory - ‘AWTA’ Australian Wool Testing Authority (NATA accreditation No. 1356)
4. Energy Efficiency Assessment:
 - A2.3(2)(a) / A5.2(1)(d) - A report issued by an Accredited Testing Laboratory – ‘AWTA’ Australian Wool Testing Authority (NATA accreditation No. 1356)
 - A2.3(2)(a) / A5.2(1)(e) – A report from an appropriately qualified person - ‘AWTA’ Australian Wool Testing Authority
 - A2.3(2)(a) / A5.2(1)(f) - Another form of documentary evidence, such as but not limited to a Product Technical Statement - Kingspan Insulation Pty Ltd

B2 Reports

Evaluation methods	Related Reports
Damp and Weatherproofing Assessment	1, 2, 3, 4, 5, 6, 7, 11
Condensation Management assessment	7, 11
Fire Hazard Properties assessment	8
Energy Efficiency Assessment	9, 10

1. **Australian Wool Testing Authority Ltd – Determination of California Bearing Ratio (CBR) Plunger Method. Test No. 16-006541 (dated 21/12/2016).** This report provides the results of testing to AS3706.4-2012 (Permicav XV™).
2. **Australian Wool Testing Authority Ltd – Test for Edge Tearing Resistance of Building Membranes and Underlays. Test No. 16-006543 (dated 23/02/2016).** This report provides the results of testing to AS/NZS 4200.1-1994 (Permicav XV™).

3. **Australian Wool Testing Authority Ltd – Test for Resistance to Dry Delamination. Test No. 16-006542 (dated 20/12/2016).** This report provides the results of testing to AS/NZS 4201.1-1994 and states the product obtained a “PASS” (Permicav XV™).
4. **Australian Wool Testing Authority Ltd – Test for Resistance to Shrinkage of Building Membranes and Underlays. Test No. 16-006546 (dated 12/01/2017).** This report provides the results of testing to AS/NZS 4201.3-1994 (Permicav XV™).
5. **Australian Wool Testing Authority Ltd – Test for Resistance to Water Penetration of Building Membranes and Underlays. Test No. 16-006539 (dated 21/12/2016).** This report provides the results of testing to AS/NZS 4201.4-1994 (Permicav XV™).
6. **Australian Wool Testing Authority Ltd – Pliable Building Membranes and underlays – Surface Water Absorbency. Test No. 16-006544 (dated 20/12/2016).** This report provides the results of testing to AS/NZS 4201.6-1994 (Permicav XV™).
7. **Australian Wool Testing Authority Ltd – Test for Water Vapour Transmission. Test No. 16-006545 (dated 24/01/2017).** This report provides the results of testing to ASTM E96-2012 (Permicav XV™).
8. **Australian Wool Testing Authority Ltd – Test for Flammability of Materials. Test No. 17-007342 (dated 08/01/2018).** This report provides the results of testing to AS 1530.2-1993 Part 2, and specifies the product obtained a Flammability Index of 1. (Permicav XV™).
9. **Kingspan Thermal Value Summary Report (Thermal Value Summary Report - 5.5mm – dated 02/10/2019) – (Permicav XV)** This report provides a Thermal value summary Report in conformance with AS/NZS 4859.1:2018 clause 2.3.3.9, based on test reports provided by AWTA Product Testing - Test Report No. 18-007617, 18-007618, 18-007619, 18-007620, 18-007621, 18-007622, 18-007623, 18-007624, 18-007625, 18-007626 for Kingspan Kooltherm (NATA accreditation No. 1356). These reports provide results of testing to ASTM C518-2017.
10. **Australian Wool Testing Authority Ltd – Test for Resistance to Surface Corrosion and Wet Delamination at Elevated Ambient Temperatures (Reflective Insulations). Test No. 17-003722 (dated 10/08/2017).** This report provides the results of testing to AS/NZS 4859.1-2002 and indicates a “PASS” for Wet Delamination and a “PASS” for Surface Corrosion (Permicav XV™).
11. **Acronem Consulting Australia Pty Ltd. – Kingspan Insuliner NCC Compliance Appraisal (dated 17/05/2016) -** This appraisal describes a combined performance solution and deemed-to-satisfy solution in as much that the product would contribute as an Insulation layer, Vapour barrier & Reflective barrier satisfying the relevant performance requirements of the NCC when installed as part of a building solution.