



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

Tel: 1300 247 235 Fax: 1300 247 329

info@kingspaninsulation.com.au

Certificate number: CM20029/3

THIS TO CERTIFY THAT AIR-CELL Permifloor®

Type and/or use of product:

Permifloor® is a reflective pliable building membrane acting as an insulation layer and a vapour-permeable membrane. It is an underfloor insulation fixed between or under floor joists and also suitable for suspended framed floors applications.

Description of product:

Permifloor® is a fibre-free, thermo reflective insulation, comprising a closed-cell foam structure sandwiched with an anti-glare foil facing on one side and a plain foil facing on the other side, which is vapour permeable.

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

BCA 2019

| Performance Requirement(s) | Volume One | | Volume Two | |
|---|------------------------------|--|-----------------|--|
| | N/A | N/A | N/A | N/A |
| 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 |
| | J1.2 | Building fabric - Thermal construction — general (must be used in conjunction with other building elements to achieve a total R value outlined in J1.6 'Floors') 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 3.12.1.5 'Floors') subject to state and territory variations |
| 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: <ul style="list-style-type: none"> 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. |

SAI Global Certification Services

Heather Mahon
Global Head of Technical Services
SAI Global Assurance

Quintin Kleyn – Unrestricted Building Certifier

Date of issue: 13/03/2020

Date of expiry: 13/03/2023



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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.

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

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.

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. The product must be used for its intended purpose.

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.

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 | Permifloor® |
| Nominal Product Thickness | 4.0mm |
| Declared Material R-value | 0.11m ² .K/W at 23°C |
| Emittance | E0.03 – Reflective Face E0.05 – Anti Glare Face |
| Flammability Index (AS 1530.2) | ≤ 5 - Low |
| Vapour Control (ASTM E96) | Vapour Permeable Class 3 |
| Water Control (AS/NZS 4201.4) | Non-Water Barrier |
| 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 Permifloor® Water-Permeable Underfloor Insulation – KIAU0052, Issue 12, Oct 2019.

A6 Other relevant technical data

- **Surface Optics Corporation – Test for Infra-Red emissivity. Job No. 4792MP ‘Antiglare Foil’ (dated 22/11/2016).** This report provides the results of emissivity data measured to ASTM E-408 for Permifloor (PSW040).
- **Surface Optics Corporation – Test for Infra-Red emissivity. Job No. 4792MP ‘Silver Foil’ (dated 22/11/2016).** This report provides the results of emissivity data measured to ASTM E-408 for Permifloor (PSW040).
- **Australian Wool Testing Authority Ltd – Test for Resistance to Water Penetration of Building Membranes and Underlays. Test No. 18-002084 (dated 24/04/2018).** This report provides the results of testing to AS/NZS 4201.4-1994 (Permifloor®).
- **Australian Wool Testing Authority Ltd – Test for Water Vapour Transmission. Test No. 18-002079 (dated 08/05/2018).** This report provides the results of testing to ASTM E96-2012 (Permifloor®).

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The product has been assessed as complying with the identified Performance Requirements of the NCC BCA 2019. This involved a review of product specifications, test reports, installation manuals, and associated documentation.

1. Fire Hazard Properties assessment:
 - a) 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)
2. Energy Efficiency Assessment:
 - a) 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) and R & D Services (IAS accreditation No. TL-566)
 - b) A2.3(2)(a) / A5.2(1)(e) – A report from an appropriately qualified person - ‘AWTA’ Australian Wool Testing Authority & James Fricker
 - c) 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 |
|-----------------------------------|-----------------|
| Fire Hazard Properties assessment | 1 |
| Energy Efficiency Assessment | 2, 3, 4 |

1. **Australian Wool Testing Authority Ltd – Test for Flammability of Materials. Test No. 18-007580 (dated 14/01/2019).** This report provides the results of testing to AS 1530.2-1993 Part 2, and specifies the product obtained a Flammability Index of 1. (Permifloor®).
2. **Kingspan Thermal Value Summary Report (Thermal Value Summary Report – Permifloor 4.0mm – dated 02/10/2019) – (Permifloor®)** *This report provides a Thermal value summary Report in conformance with AS/NZS 4859.1:2018 clause 2.3.3.9, based on the test reports provided by AWTA product testing (NATA accreditation No. 1356) – Test report No. 18-007627, 18-007628, 18-007629, 18-007630, 18-007632 and also R & D Services (IAS accreditation No. TL-566) – Report No. RD12200, RD15048, RD18437. These reports provide results of testing to ASTM C518-2017.*
3. **Australian Wool Testing Authority Ltd – Test for Resistance to Surface Corrosion and Wet Delamination at Elevated Ambient Temperatures (Reflective Insulations). Test No. 18-002065 (dated 18/05/2018).** 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 (Permifloor®).
4. **James M Fricker Pty Ltd – Report i297a (dated 19/05/2009)** - *This report contains the results of testing to AS/NZS 4859.1 and the consequential calculations to determine the thermal resistance of the materials.*