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Certificate no: CM20114
Version: 04
Original issue date: 23 December 2015
Version date: 30 May 2024

1. Certificate Holder Details

Kingspan Limited
97 Montreal St, Sydenham, Christchurch, 8023
New Zealand
PO Box 39136 Harewood, Christchurch 8545
New Zealand
http://www.kingspanpanels.co.nz
Ph: 0800 12 12 80 | +64 3260 5530

2. Product Certification Body

SAI Global Certification Services Pty Limited
(ACN 108 716 669) Trading as "SAI Global"
Operating as "Intertek & Intertek SAI Global"
Address: Level 7 Suite 7.01. 45 Clarence Street, Sydney NSW 2000 Australia

www.saiglobal.com

Complaints: The complaints process for this certificate can be found here: https://saiassurance.com.au/complaints-appeals/

Product Certificate

Kingspan Limited
Architectural Wall Panels (AWP) and Evolution (EVO)

3. Description of Building Method or Product

Architectural Wall Panels (AWP) and Evolution (EVO) insulated wall panels consist of an external & internal steel sheet liner with a Polyisocyanurate (PIR) core.
The exterior weather sheet liner is 0.5mm thick (or greater) Zincalume G300S AM100 or AM150 coated steel sheet.
The internal steel sheet liner is 0.4mm thick Zincalume G300S AM100.

*Matters that should be taken into account in the use or application of the building method or product can be found in item **6. Conditions and Limitations of Use***
*Continuation of description can be found in item **10 – Supporting Information about Description**.*

Product brochure/catalogue or models identification numbers:

1. AWP - KS900 AWP, KS1000 AWP. Profiles - Mini-Micro (MM), Micro-Rib (MR), Plank (PL) & Wave (WV)
2. EVO – KS900 EVO, KS1000 EVO. Profiles - Evolution Axis, Evolution Recess, Evolution Multi-Groove – One Groove, Evolution Multi-Groove – Two Groove, Evolution Multi-Groove – Three Groove

4. Intended use of Building Method or Product

Architectural Wall Panels (AWP) and Evolution (EVO) insulated wall panels are for use on buildings as an external façade installed in either horizontal or vertical orientation.

*Continuation of intended use can be found in item **11 – Supporting Information about Intended use**.*

5. New Zealand Building Code Provisions

Clause B1 Structure — B1.3.1; B1.3.2; B1.3.3(a, f, g, h, j); B1.3.4

Clause B2 Durability — B2.3.1(b)

Clause C3 Fire affecting areas beyond the fire source — C3.4(a); C3.5; C3.7

Clause E2 External moisture –E2.3.2 (contributes to); E2.3.7

Clause E3 External moisture –E3.3.5

Clause F2 Hazardous building materials – F2.3.1

Clause H1 Energy efficiency provisions — H1.3.1 (contributes to)

*How the building method or product complies or contributes can be found in item **8. Basis for Certification.***

*Any qualifications on the extent of that compliance can be found in item **6. Conditions and limitations of use.***

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Architectural Wall Panels (AWP) and Evolution (EVO)

6. Conditions and Limitations of Use

1. Architectural Wall Panels (AWP) and Evolution (EVO), must be installed in accordance with the manufacturer's Installation Guides as per below;
    a. Kingspan Architectural Wall Panel Product Data Sheet – KS1000 AWP Architectural Wall panel – Q1 2024
    b. Architectural Wall Panels (AWP) KS1000 Installation Guide – Vertically Laid – Q1 2024
    c. Architectural Wall Panels (AWP) KS1000 Installation Guide – Horizontally Laid – Q1 2024
    d. Kingspan Facades Evolution Panelised Façade Product Data Sheet – KS900/1000 EVO Evolution Axis, Recess and Multi-Groove Panelised Façade System – Q1 2024
    e. Evolution Axis – Multi-groove – Recess – Installation Guide – Vertically Laid – Q1 2024
    f. Evolution Axis – Multi-groove – Recess – Installation Guide – Horizontally Laid – Q1 2024
2. Panel spans must not exceed the manufacturer's specification for design wind speeds, where the design wind speed is to be either as determined by NZS3604 Table 5.4 (for buildings within the scope of NZS3604:2011 para 1.1.2), or as specifically calculated in accordance with AS/NZS 1170 by a chartered professional engineer (CPENG).
3. Fixing/fastening (including number of fasteners) of the panels to the supporting structure is not covered by this certification. Contact Kingspan Technical Services via their website for project specific advice for fastener requirements.
4. The product is suitable for use within 1 m of the boundary.
5. The product is suitable for use where the inner face of the panel is exposed as the internal lining, in:
    a. any building or use where protected by an automatic fire sprinkler system, or
    b. any un-sprinklered building except:
        i. where care/protection is provided or
        ii. in exit ways or
        iii. in occupied spaces in Importance Level 4 buildings or
        iv. in crowd and sleeping uses (except household units)
6. The product is suitable for exposure zones B, C and D as defined by NZS3604:2011.
7. Certification does not include accessories used with the product.

NOTE: Together, items 3,4,5 and 6 define scope of use

Reference Documents:

- Kingspan Architectural Wall Panel Product Data Sheet – KS1000 AWP Architectural Wall panel – Q1 2024
- ARCHITECTURAL WALL PANEL (AWP) HORIZONTAL Q1 2024 KS1000AWP WALL HORIZONTAL_STD Q1 2024 – 08/03/2024
- ARCHITECTURAL WALL PANEL (AWP) VERTICALLY LAID KS1000AWP WALL VERTICAL_STD Q1_2024– 18/03/2024
- EVOLUTION PANELISED FACADE (EVO) HORIZONTALLY LAID - KS1000EVO WALL HORIZONTAL_STD Q1 2024 – 08/03/2024
- EVOLUTION PANELISED FACADE (EVO) VERTICALLY LAID - KS1000EVO WALL VERTICAL_STD Q1_2024 - 18/03/2024

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7. Health and Safety Information

- Kingspan Architectural Wall Panel Product Data Sheet – KS1000 AWP Architectural Wall panel – Q1 2024
- Kingspan Facades Evolution Panelised Façade Product Data Sheet – KS900/1000 EVO Evolution Axis, Recess and Multi-Groove Panelised Façade System – Q1 2024

8. Basis for Certification

- **B1 Structure** – by testing and comparison with provisions of Verification Method B1/VM1
- **B2 Durability** – by testing and comparison with provisions of Verification Method B2/VM1
- **C3 Fire affecting areas beyond the fire** - by testing and comparison with the provisions of Verification Method C/VM2 and Acceptable Solutions C/AS1 and C/AS2
- **E2 External Moisture** – Comparison with Verification Method E2/VM1 and referenced standard AS/NZS4284
- **E3 Internal Moisture** – By comparison with Acceptable Solution E3/AS1
- **F2 Hazardous building materials** – by testing and comparison with the performance requirements of cl F2.3.1
- **H1 Energy Efficiency** – by testing and comparison with Verification Methods H1/VM1 and H1/VM2

9. Supporting Documentation for Certification

Acceptable Solutions and Verification Methods for New Zealand Building Code:

1. Building regulations 1992 (SR 1992/150) – Reprinted as at 23 December 2023.
2. Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B1 Structure. Amendment 21, (02 November 2023)
3. Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B2 Durability. Amendment 12 (28 November 2019).
4. Verification Method: Framework for Fire Safety Design For New Zealand Building Code Clauses C1-C6 Protection from Fire – C/VM2. Amendment 7, (02 November 2023)
5. C/VM1 Verification Method for Solid Fuel Appliances C/AS1 Acceptable Solution for Buildings with Sleeping (residential) and Outbuildings (Risk Group SH) For New Zealand Building Code Clauses C1-C6 Protection from Fire. Amendment 5, (5 November 2020)
6. C/AS2 Acceptable Solution for Buildings other than Risk Group SH for New Zealand Building Code Clauses C1-C6 Protection from Fire First edition Amendment 3, (2 November 2023).
7. Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3 For New Zealand Building Code Clauses E2 External Moisture Amendment 10, (5 November 2020).
8. Acceptable Solutions and Verification Methods For New Zealand Building Code Clause E3 Internal Moisture. Amendment 7, (5 November 2020).

9. Acceptable Solutions and Verification Methods for New Zealand Building Code Clause F2 Hazardous Building Materials. Amendment 3 (1 January 2017).
10. H1 Energy Efficiency, Verification Method H1/VM1, Energy efficiency for all housing, and buildings up to 300 m2, Fifth edition Amendment 1, (4 August 2022).
11. H1 Energy Efficiency, Verification Method H1/VM2, Energy efficiency for all housing, and buildings greater than 300 m2, First edition Amendment 1, (4 August 2022)

Test Reports

12. **Technology Centre, VINCI Construction UK Ltd – Weathertightness Testing of a sample of Kingspan AWP panels. Report No. N950/08/14195 (dated 10th September 2009).** *This report provides the results of weathertightness testing to the CWCT Standard Test methods for building envelopes 2005 for a horizontal joint installation. The following properties were testing, and all received a pass result; Air permeability, Watertightness – static, Watertightness – dynamic, Watertightness – hose, Wind resistance – serviceability, Wind resistance – safety.*
13. **Technology Centre, Taylor Woodrow Technology – Weathertightness Testing of a sample of Kingspan KS1000 Optimo Cladding. Report No. N950/06/13662 (dated 15th March 2006).** *This report provides the results of weathertightness testing undertaken generally to the CWCT Standard Test methods for curtain walling for a vertical joint installation. The following properties were testing, and all received a pass result; Air permeability, Watertightness – static, Watertightness – dynamic, Wind resistance – serviceability, Wind resistance – safety. Impact resistance testing generally to BS8200 was also undertaken.*
14. **James M Fricker – Thermal Performance of Insulated Building System for Kingspan Panels Pty Ltd. Report No. i231a (dated 17 February 2022).** *This report provides the R-Values of roofs and walls incorporating Kingspan KS1000RW panels as determined in accordance with AS/NZS 4829.1:2018.*
15. **BRANZ – ISO 9705 Fire Test on Kingspan PIR Cored Sandwich Panel System. Report No.FC16154-02-1 (dated 28th October 2022).** *This report provides the results of testing to AS/ISO 9705:2003 and concludes that 30mm to 140mm thick Kingspan PIR cored sandwich panels achieve at least a classification of Material Group 2-S and would not exceed the 5m²/s². The Smoke Production rate index for the tested sample was 2.6m²/s².*
16. **BRANZ – Cladding Material Classification. Heat release rate and Heat Release (Cone Calorimeter Method) Report No. FH17612-05-1-C1 (dated 3rd August 2023).** *This report presents the results of testing Architectural Wall Panel (AWP) to ISO 5660 - 1 and concludes that 50mm thick Kingspan PIR cored sandwich panels achieve at least a classification of Material Type A <100kW/m2 and <25MJ/m2.*
17. **Buildex Engineering Test Lab – Test for pull through testing using Kingspan composite panels. Report No. ELTR 1537 (dated 23rd March 2011).** NATA Accreditation No. 1404. *This report provides the results of mechanical testing to QCM-020 of 14-20 x 65 TEK Screw with and without 25mm aluminium washers.*
18. **Buildex Engineering Test Lab – Test for pull through testing using Kingspan composite panels. Report No. ELTR 1579, Issue 2 (dated 3rd September 2012).** NATA Accreditation No. 1404. *This report provides the results of mechanical testing to Bx QCM-020 of 14-14 and 14-10 Hex Washer TEK Screws into purlins F100, F150 and F200 sections.*

19. **Buildex Engineering Test Lab – Test for pull through testing using Kingspan composite panels. Report No. ELTR 1590 (dated 1st February 2013)**. NATA Accreditation No. 1404. *This report provides the results of mechanical testing to Bx QCM-020 of 14-14 x 110 Hex Washer TEKs from G450 studs and purlins.*
20. **CostinRoe Consulting – CO12519.00-4 - Structural analysis report and derivation of load-span tables (19 November 2015)** *This report reviews the load-span tables for KS1000AWP panels applicable for non-cyclonic areas, using the methods of analysis recommended in EN14509:2006 "Self-Supporting Double Skin Metal Faced Insulating Panels – Factory made Products – Specifications" using applicable structural actions of AS/NZS1170.0:2002 & AS/NZS1170.1:2002.*
21. **Environmental Product Declaration – Wall Panels – Registration No. S-P-00847 (dated 26 October 2022)**
22. **Environmental Product Declaration – Wall Panels – Registration No. S-P-05481 (dated 26 October 2022)**
23. **Material Safety Datasheet – Kingspan Roof, Wall & Ceiling Panels, Kingspan Insulated Panels, Chemwatch 16-2543, version 7.1 (dated 01/11/2019).** *No hazards identified*

10. Supporting Information About Description

Any supporting information for section 3.

Architectural Wall Panels (AWP) and Evolution (EVO) insulated wall panels consist of a rigid thermoset core sandwiched between an external & internal steel sheet liner.

The exterior weather sheet liner is 0.5mm thick (or greater) Zincalume G300S AM100 or AM150 coated steel sheet.

The core is polyisocyanurate (PIR).

The internal steel sheet liner is 0.4mm thick Zincalume AM100 coated steel sheet.

AWP - Standard lengths are from 2.0m to 11.8m (panels cannot be end lapped), widths of 900mm & 1000mm. Panel core thickness range from 50mm to 140mm.

EVO – Standard lengths are from 2.0m to 7.0m (panels cannot be end lapped), widths of 900mm & 1000mm (Multi-groove is only available in 1000mm). Panel core thickness range from 50mm to 140mm

Components:
The components are detailed in the manufacturer's Installations Guides and consist of;

a) AWP or EVO Panel
b) Fasteners
c) Butyl tape sealant – 6mm x 4mm
d) Fire Rated canister foam
e) Gun grade sealant
f) Top hats and Base angles

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Models/Variations:
The models/variations are detailed in the manufacturer's Installations Guides and consist of;

- **AWP** - *KS900 AWP, KS1000 AWP.*
  - Profiles - *Mini-Micro (MM), Micro-Rib (MR), Plank (PL) & Wave (WV)*
- **EVO** – *KS900 EVO, KS1000 EVO.*
  - Profiles - Evolution *Axis, Evolution Recess, Evolution Multi-Groove – One Groove, Evolution Multi-Groove – Two Groove, Evolution Multi-Groove – Three Groove*

11. Supporting Information About Intended Use

Any supporting information for section 4.

Architectural Wall Panels (AWP) and Evolution (EVO) insulated wall panels are for use on Residential, Commercial & Industrial Buildings (including areas for communal use), as an external façade installed in either horizontal or vertical orientation.

Reference Documents:

a) Kingspan Architectural Wall Panel Product Data Sheet – KS1000 AWP Architectural Wall panel – Q1 2024
b) Architectural Wall Panels (AWP) KS1000 Installation Guide – Vertically Laid – Q1 2024
c) Architectural Wall Panels (AWP) KS1000 Installation Guide – Horizontally Laid – Q1 2024
d) Kingspan Facades Evolution Panelised Façade Product Data Sheet – KS900/1000 EVO Evolution Axis, Recess and Multi-Groove Panelised Façade System – Q1 2024
e) Evolution Axis – Multigroove – Recess – Installation Guide – Vertically Laid – Q1 2024
f) Evolution Axis – Multigroove – Recess – Installation Guide – Horizontally Laid – Q1 2024
g) ARCHITECTURAL WALL PANEL (AWP) HORIZONTAL Q1 KS1000AWP WALL HORIZONTAL_STD- Q1 2024
h) ARCHITECTURAL WALL PANEL (AWP) VERTICALLY LAID KS1000AWP WALL VERTICAL_STD- Q1_2024
i) EVOLUTION PANELISED FACADE (EVO) HORIZONTALLY LAID - KS1000EVO WALL HORIZONTAL_STD- Q1 2024
j) EVOLUTION PANELISED FACADE (EVO) VERTICALLY LAID - KS1000EVO WALL VERTICAL_STD- Q1 2024

12. Supporting Information About Conditions and Limitations of Use

Any supporting information for section 6.

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Signatures

Name and Signature of the Product Certification Body's (PCB) authorised representative and, where different, the person assigned by the PCB to make the certification decision.

Calin Moldovean
President, Business Assurance
SAI Global Assurance

All CodeMark certificates that are current must be registered with MBIE. MBIE maintains a register of valid product certificates. Please find the register here.

If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.