

<b>0437P KINGSPAN INSULATED PANELS CLADDING SYSTEMS</b>
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**Branded worksection**

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**Worksection abstract**

This branded worksection *Template* is applicable to lightweight external wall cladding and facade systems using KINGSPAN INSULATED PANELS insulated wall panels.

**How to use this worksection**

Customise this worksection *Template* for each project. See A guide to NATSPEC worksections ([www.natspec.com.au](http://www.natspec.com.au)) for information on *Template* structure, word styles, and completing a worksection.

**Related material located elsewhere in NATSPEC**

If a listed worksection is not part of your subscription package and you wish to purchase it, contact NATSPEC.

Related material may be found in other worksections. See for example:

- *0182 Fire-stopping.*
- *0331 Brick and block construction* for brick veneer.
- *0342 Light steel framing* for subframing.
- *0382 Light timber framing* for subframing.
- *0471 Thermal insulation and pliable membranes* for wall insulation, thermal break strips and vapour permeable membranes.
- *0511 Lining* for internal lightweight linings.
- *0531 Suspended ceilings – combined* for suspended soffits.
- *0671 Painting* for in situ paint finishes.
- *0672 Textured and membrane coatings* for in situ application of membrane and surface coatings.

Each of the following worksections contains a single cladding system and may be used where appropriate in addition to this worksection:

- *0432 Curtain walls.*
- *0433 Stone cladding.*
- *0434 Cladding – flat sheets and panels.*
- *0435 Cladding – planks and weatherboards.*
- *0436 Cladding – profiled and seamed sheet metal.*

Related branded worksections include:

- *0428p KINGSPAN INSULATED PANELS roofing systems.*
- *0471p KINGSPAN in thermal insulation and pliable membranes.*
- *0762p KINGSPAN INSULATED PANELS in cool rooms.*

**Documenting this and related work**

You may document this and related work as follows:

- Check if your cladding is required to be non-combustible, refer to BCA (2022) Section C and *ABCB Fire performance of external walls and cladding advisory note (2020)*. Consider adding a requirement in **SUBMISSIONS** for evidence of conformance from the contractor. If using a performance solution for facade cladding, type testing to AS 5113 (2016) may be used as the verification method for external walls.
- Weatherproofing: Conform to BCA (2022) F3D5 for Class 2 to Class 9 buildings or BCA (2022) H1D7 for Class 1 and 10 buildings. Alternatively, document a performance solution. Consider adding a requirement for evidence of conformance from the contractor. Refer to NATSPEC TECHnote DES 044 for information on weatherproofing of external walls.
- Document the structural support system to your office documentation policy.
- Locate the extent of cladding types, accessories and finishes on drawings to your office documentation policy.
- Penetrations: Show on the drawings the location and extent of penetrations for services and structural elements including flashing details.
- Document the location of openings and penetrations to avoid waste and panel handling times.

- For flush jointed fibre cement soffit lining import the relevant material from *0511 Lining*.
- If required, state the minimum thermal resistance (R-Value) (m<sup>2</sup>.K/W). See NATSPEC TECHnote DES 031 for information on specifying R-Values.
- In bushfire-prone areas, document bushfire protection requirements to AS 3959 (2018) and the NCC. See NATSPEC TECHnote DES 018 for information on bushfire protection.
- Check lead time for imported selections and consider adding a requirement, in **SUBMISSIONS**, for the builder to confirm availability.

The *Normal* style text of this worksection may refer to items as being documented elsewhere in the contract documentation. Make sure they are documented.

For example:

- Location of control joints.

Search [acumen.architecture.com.au](http://acumen.architecture.com.au), the Australian Institute of Architects' practice advisory subscription service, for notes on the following:

- Guarantees and warranties.
- Site planning and design for bushfire.

### Specifying ESD

Green Star: KINGSPAN INSULATED PANELS cladding may contribute to the overall Green Star rating for a building in categories such as Energy, Material, and Emissions.

Life Cycle Assessment: KINGSPAN INSULATED PANELS products are environmentally assessed for impact on the environment, and environment product declarations are available on request. KINGSPAN INSULATED PANELS is a manufacturer that has:

- Regular global reporting on sustainability performance on the Global Reporting Initiative website.
- Low environmental impact for all products.
- Environmental product declarations (EPD) for all insulated panels.

Refer to NATSPEC TECHreport TR 01 on specifying ESD.

## 1 GENERAL

KINGSPAN INSULATED PANELS is the world's largest and leading manufacturer of high-performance insulated panel building envelopes. Its wide range of products manufactured in their Australian facilities include insulated wall and roof panels, high performance standing seam systems and facade solutions. KINGSPAN INSULATED PANELS is widely recognised in the industry for the high quality and performance of its products as well as its commitment to excellent customer service and technical support.

### 1.1 RESPONSIBILITIES

#### General

Requirement: Provide KINGSPAN INSULATED PANELS wall panel cladding and associated work, as documented.

*Documented* is defined in *0171 General requirements* as meaning contained in the contract documents.

#### Corrosion resistance

Material: To the manufacturer's recommendations for distance from marine influence.

**Distance from marine influence:** [complete/delete]

The distance from marine influence can be used as a guide to determine the finish and grade of steel required, however other factors may also need consideration. For information on determining corrosivity categories in relation to environmental influences, see AS 2312.1 (2014) Table 2.1, AS 4312 (2019) Table 2.1 and Table 4.1. Refer to **CORROSION RESISTANCE, Atmospheric corrosivity category** in *0171 General requirements*, for the project corrosivity categories to AS 4312 (2019). Refer also to BlueScope Technical bulletins BlueScope TB-01A (2023) and BlueScope TB-01B (2022), which discuss the selection of steel roofing and walling products, and the correlation of distance to marine influence to the corrosion categories defined in AS 4312 (2019).

### 1.2 COMPANY CONTACTS

#### KINGSPAN INSULATED PANELS technical contacts

Website: [www.kingspan.com/au/en/contact-us/](http://www.kingspan.com/au/en/contact-us/).

### 1.3 CROSS REFERENCES

#### General

Requirement: Conform to the following:

- 0171 General requirements.

0171 General requirements contains umbrella requirements for all building and services worksections.

List the worksections cross referenced by this worksection. 0171 General requirements references the 018 Common requirements subgroup of worksections. It is not necessary to repeat them here. However, you may also wish to direct the contractor to other worksections where there may be work that is closely associated with this work.

NATSPEC uses generic worksection titles, whether or not there are branded equivalents. If you use a branded worksection, change the cross reference here.

### 1.4 MANUFACTURER'S DOCUMENTS

#### Technical manuals

Technical manuals for Architectural Wall Panel and Evolution Panelised Facade:  
[www.kingspan.com/au/en/products/insulated-panels/](http://www.kingspan.com/au/en/products/insulated-panels/).

Technical manuals for KS1100KP Karrier Wall Panel: [www.kingspan.com/au/en/products/facade-systems/rainscreen-substructure/](http://www.kingspan.com/au/en/products/facade-systems/rainscreen-substructure/).

Resource centre: [www.kingspan.com/au/en/products/insulated-panels/](http://www.kingspan.com/au/en/products/insulated-panels/).

### 1.5 INTERPRETATION

#### Abbreviations

General: For the purposes of this worksection, the following abbreviations apply:

- AWP: Architectural Wall Panel range.
- EG: Multi Groove External Liner.
- EVO: Evolution Panelised Facade.
- EVOLUTION: Evolution Panelised Axis Facade.
- KP: Karrier Wall Panel.
- MM: Mini-Micro.
- MR: Micro-Rib.
- PL: Plank.
- Q2: Recess.
- RW: KS1000RW Trapezoidal Wall Panel.
- WV: Wave.

Edit the **Abbreviations** subclause to suit the project or delete if not required. List alphabetically.

### 1.6 TOLERANCES

#### Permitted deviations

Requirement: To KINGSPAN INSULATED PANELS recommendations.

Structural steelwork for KINGSPAN INSULATED PANELS wall cladding:  $\pm 5$  mm between bearing planes of adjacent supports.

### 1.7 SUBMISSIONS

#### Fire performance

Combustibility: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE, Combustibility**.

Fire hazard properties: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE, Fire hazard properties**.

Fire-resistance level: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE, Error! Reference source not found.**

#### Operation and maintenance manuals

Requirement: Submit manual to **COMPLETION, Operation and maintenance manuals**.

### Products and materials

Thermal insulation performance: Submit evidence of performance to AS/NZS 4859.1 (2018) and AS/NZS 4859.2 (2018).

This is primarily to verify claimed R-Values for NCC compliance.

Type tests: As appropriate for the project, submit results of facade testing as follows:

- Water penetration to AS/NZS 4284 (2008).
- Structural testing to AS/NZS 4284 (2008).
- Resistance to wind pressure:
  - . For non-cyclone regions to AS 4040.2 (1992).
  - . For cyclone regions to AS 4040.3 (2018).

BCA (2022) F3P1 requires that external walls prevent the penetration of water so that internal conditions do not become unhealthy or dangerous.

Type tests are carried out off-site. However, submission of evidence of a successful type test may be called up here for requirements specified in SELECTIONS or PRODUCTS, when there are no SELECTIONS.

Contact KINGSPAN INSULATED PANELS for relevant testing and evidence of conformity.

Evidence of delivery: Submit delivery docket as evidence of delivery of [complete/delete]

If evidence of delivery to site is required for particular products, consider including this *Optional* style text by changing to *Normal* style.

### Prototypes

General: Erect a prototype of each panel type, including at least one example of each component in the system to verify selections submitted as samples, to demonstrate aesthetic effects, to set quality standards for materials and execution, and to verify performance, including wind loading.

Inclusions:

- Typical components, attachments to building structure and methods of installation.
- Window opening with cladding panel, trim and returns.
- Sealant filled joint.

Type: [complete/delete]

Extent: [complete/delete]

Not less than 1800 mm long x 1200 mm high or Not less than 4500 mm long x 3000 mm high.

Location: [complete/delete]

Preferably show on the drawings the location and extent of the prototype and the number and type of components to be included. Delete if the size of the project does not justify a prototype.

Incorporation: Subject to approval, incorporate the prototype in the completed works.

This *Optional* style text may be included by changing to *Normal* style text.

### Samples

Approved samples that define the acceptable limits of colour and texture variations are retained on site. If particular or additional samples are required, list them here.

Finish: Submit samples of the cladding material showing the range of variation available.

Sample size: [complete/delete]

Sample sizes are generally 300 x 300 mm or 600 x 600 mm.

### Shop drawings

General: Submit shop drawings to a scale that best describes the detail, showing the following:

- Dimensioned elevations of all elements.
- Details of construction, connections and all support systems.
- Dimensions of all typical elements and of any special sizes and shapes.
- Provision for the exclusion and/or drainage of moisture.
- Jointing details and method of fixing between individual elements and between this installation and adjacent work, including adjustment.
- Sealant types and full size sections of all sealant-filled joints and backing rods.

- Provision for thermal movement.
- Provision for movement under seismic and wind loads.
- Sequence of installation.
- Coordination requirements with other work.
- Schedule of materials, finishes, componentry, hardware and fittings.

### Subcontractors

General: Submit names and contact details of proposed KINGSPAN INSULATED PANELS approved installer.

Evidence of experience: [complete/delete]

Contact your local KINGSPAN INSULATED PANELS sales representative for a list of trained and recommended installers or for information about its free comprehensive installation training program.

### Warranties

Requirement: Submit warranties to **COMPLETION, Warranties.**

Describe the requirements of warranties in PRODUCTS or EXECUTION, as appropriate, and list the submissions required here.

Cladding materials: Submit the manufacturer's product warranties.

## 1.8 INSPECTION

### Notice

Inspection: Give notice so that inspection may be made of the following:

- Workshop assemblies before delivery to the site.
- Framing, pliable membranes and insulation before covering up or concealing.
- Completion of a prototype.

Amend to suit the project, adding critical stage inspections required.

**Hold points**, if required, should be inserted here.

Coordinate with requirements for prototypes or delete.

## 2 PRODUCTS

### 2.1 GENERAL

#### Product substitution

Other products: Conform to **SUBSTITUTIONS** in 0171 *General requirements*.

**SUBSTITUTIONS** in 0171 *General requirements* sets out the submissions required if the contractor proposes alternative products. Refer also to NATSPEC TECHnote GEN 006 for more information on proprietary specification.

#### Storage and handling

Storage and handling: To the manufacturer's recommendations and the following:

- Store in sealed, unopened packaging on a slight slope to prevent ponding on panel faces.
- Keep dry and unexposed to weather, including direct sunlight.
- Protect materials including edges and surfaces from damage.
- Do not drag metal sheets or panels across each other or over other materials.

Storage area conditions: Allocate a safe and free trade area.

#### Product identification

General: Marked to show the following:

- Manufacturer's identification.
- Product brand name.
- Product type.
- Quantity.
- Product reference code and batch number.
- Date of manufacture.

Edit the list to suit the project or delete if not required.

**Components**

Cladding support: Conform to the **Cladding support schedule**.

If using anchors or attachments cast in the concrete structure, refer to information on embedded anchors in *0432 Curtain walls* and document requirements in the selected concrete worksections.

Flashings: To AS/NZS 2904 (1995).

Coordinate with *0428p KINGSPAN INSULATED PANELS roofing systems*.

**2.2 FIRE PERFORMANCE****Combustibility**

Cladding: Tested to AS 1530.1 (1994).

Check if your cladding is required to be non-combustible, refer to BCA (2022) Section C and the *ABC Fire performance of external walls and cladding advisory note (2020)*.

Non-combustible: Kingspan PIR products do not meet non-combustibility under the NCC requirements.

If using a performance solution for facade cladding, type testing to AS 5113 (2016) may be used as the verification method for external walls. Refer to BCA (2022) C1V3 for compliance with BCA (2022) C1P2 for the spread of fire via the external wall.

**Fire hazard properties**

See NATSPEC TECHnote DES 003 for more information on the fire hazard properties of insulation materials and NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

Group number: To AS 5637.1 (2015).

Non-sprinklered buildings: Wall and ceiling linings must either have an average specific extinction area less than 250 m<sup>2</sup>/kg or a smoke growth rate index not more than 100 as determined by AS 5637.1 (2015).

Group Number: Refer to BCA (2022) Spec 7. All Kingspan PIR Panels: Group number 2.

Refer to NATSPEC TECHnote DES 020 for information on fire hazard properties.

Refer to BRANZ fire test certificate No 498 for the performance of KINGSPAN INSULATED PANELS PIR cored sandwich panels with a nominal thickness of 200 mm which was found to meet the requirements of BCA (2022) Spec 7 as a Group 2 product, tested to AS ISO 9705 (2003), also having a Smoke Growth Rate Index (SMOGRA) of < 100.

Bonded laminated materials: Tested to AS/NZS 1530.3 (1999). Fire hazard indices, as follows:

- Spread-of-Flame Index: 0.
- Smoke-Developed Index: ≤ 3.

Include if bonded laminated material is being used where a non-combustible material is required. See BCA (2022) C2D10(6).

Spread-of-Flame Index: All Kingspan PIR Panels: SFI 0.

Smoke-Developed Index: All Kingspan PIR Panels: SDI 2

Refer to NATSPEC TECHnote DES 020 for information on fire-resistance levels.

Insulation materials: Tested to AS/NZS 1530.3 (1999). Fire hazard indices as follows:

See also BCA (2022) Table S7C7.

Refer to CSIRO's certificate of test report No. FNE8218 for the fire hazard properties of KS1200CS, with a nominal thickness of 150 mm tested to AS/NZS 1530.3 (1999):

- Ignitability index: 0.
- Spread-of-Flame Index: 0.
- Heat Evolved Index: 0.
- Smoke Developed Index: 2.

- Spread-of-Flame Index: ≤ 9.
- Smoke-Developed Index: ≤ 8 if Spread-of-Flame Index > 5.

**Fire-resistance of building elements**

Fire-resistance level: Tested to AS 1530.4 (2014).

Refer to NATSPEC TECHnote DES 020 for information on fire-resistance levels.

**Fire-stops**

Requirement: Where fire-stops and smoke flashings are placed between inner faces of the cladding and building elements (such as beam, slab or column faces), install and seal to meet fire test requirements.

Product: [complete/delete]

Nominate the product here. Delete if the selection of the proprietary products is the responsibility of the contractor.

## 2.3 KINGSPAN INSULATED PANELS ARCHITECTURAL WALL PANEL (AWP) SYSTEMS

### General

KINGSPAN INSULATED PANELS KS1000AWP or KS900AWP can be installed vertically or horizontally depending on the desired aesthetics.

Architectural Wall Panels AWP are locally manufactured and available in a range of thicknesses, three colour palettes and profiles including:

- MiniMicro (KS1000MM, KS900MM).
- Plank (KS1000PL).
- Wave (KS1000WV, KS900WV).
- MicroRib (KS1000MR, KS900MR).

Standard lengths from 2 m to 13.7 m. Longer lengths on request. For orders outside Australia, maximum lengths are 11.8 m. Maximum length for panels transported by rail is 12 m. Exact lengths will be determined by cladding contractor from steelwork drawings.

Contact KINGSPAN INSULATED PANELS local specification manager for minimum order quantities and associated lead times.

Description: Secret fixed weathertight wall cladding system comprising KINGSPAN INSULATED PANELS insulated wall panels and accessories.

Architectural Wall Panel: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core.

KS1000 IPL4 panels: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core.

The Architectural Wall Panel IPL4 panel is engineered to meet the AS/NZS 1170.2 (2021) clause 2.5.8 impact loading from windborne debris.

### System accessories

Requirement: KINGSPAN INSULATED PANELS system accessories colour matched to wall panels, as documented:

- Top hats.

Steel top hats maximum length 3 m. Aluminium top hats maximum lengths 6 m.

- Preformed insulated corners.

A range of insulated preformed corners combining insulation continuity with aesthetic design to offer an alternative solution to traditional corner flashings. The range includes curved, cranked and Z-Shaped corner panels.

### Ancillaries

Sealant tape: 6 mm x 4 mm butyl rubber.

AWP profile filler for KS1000AWP: 25 mm x 25 mm x 5 mm.

Horizontal installation:

- Base support: AWP base channel for 50, 80, 100 and 140 mm thick panels.
- Panel bearer for 50, 80, 100 and 140 mm thick panels.
- VJ2 Bubble gasket: 95 mm wide.
- Neutral cure gun grade silicone sealant: As required.

Sealant not supplied by KINGSPAN INSULATED PANELS. Refer to KINGSPAN INSULATED PANELS technical drawings for sealant locations.

- Foam tape: 4.8 mm x 60 mm wide neoprene for high humidity applications.

When using WV (wave) profile, use 6 mm x 9 mm PVC foam tape under flashings/top hats.

### Flashings

Prefabricated flashings: Minimum 0.6 mm coated steel to AS 1397 (2021) manufactured to suit the selected external and internal sheet.

### Fasteners (non-cyclonic)

Primary: Self-tapping, self-drilling screws manufactured from carbon steel, anti-corrosion coated and fitted with a 16 mm diameter bonded washer. If the panel's tongue is removed on site, use face fixed fasteners to KINGSPAN INSULATED PANELS recommendations.

Secondary: Carbon steel stitching screws complete with bonded 14 mm diameter EPDM washers, or rivets.

Cyclonic applications: Contact KINGSPAN INSULATED PANELS technical services for recommendations and testing documentation.

## 2.4 KINGSPAN INSULATED PANELS KS1000RW TRAPEZOIDAL WALL PANEL

### General

KS1000RW Trapezoidal Wall Panel is a through-fix, single component and versatile insulated panel solution that can be installed in both vertical and horizontal applications.

Description: Through fixed weathertight wall cladding system comprising KINGSPAN INSULATED PANELS insulated wall panels and accessories.

KS1000RW panels: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core.

### System accessories

Requirement: KINGSPAN INSULATED PANELS system accessories colour matched to wall panels, as documented:

- Steel top hats with flush insert: Top hat A (THA).

Steel top hats maximum length 3 m.

- Preformed insulated corners.

A range of insulated preformed corners combining insulation continuity with aesthetic design to offer an alternative solution to traditional corner flashings. The range includes curved, cranked and Z-Shaped corner panels.

### Ancillaries

Sealant tape: 6 mm x 4 mm butyl rubber.

RW profile filler for KS1000 RW: 100 mm x 35 mm x 35 mm.

VJ2 Bubble gasket: 95 mm wide.

Foam tape: 4.8 mm x 60 mm wide neoprene for high humidity applications.

Neutral cure gun grade silicone sealant: As required.

Sealant not supplied by KINGSPAN INSULATED PANELS . Refer to KINGSPAN INSULATED PANELS technical drawings for sealing locations.

### Flashings

Prefabricated flashings: Minimum 0.6 mm coated steel to AS 1397 (2021) manufactured to suit the selected external and internal sheet.

### Fasteners (non-cyclonic)

Primary: Self-tapping, self-drilling screws, manufactured from carbon steel, anti-corrosion coated and fitted with a 16 mm diameter bonded washer. Colour matched heads or caps.

Secondary: Carbon steel stitching screws complete with bonded 14 mm diameter EPDM washers.

Cyclonic applications: Contact KINGSPAN INSULATED PANELS technical services for recommendations and testing documentation.

## 2.5 KINGSPAN INSULATED PANELS EVOLUTION PANELISED FACADE

### General

Unprofiled/flat insulated panel solution for a minimalist facade effect. Evolution Panelised Facade can be laid horizontally or vertically and is available in module widths of 900 mm and 1000 mm. The system features a hidden joint detail which conceals fasteners from view.

Description: Secret fixed facade system comprising KINGSPAN INSULATED PANELS Evolution Panelised Facade and accessories.

KS900 Evolution, KS1000 Evolution - Evolution Axis: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core.

KS900Q2, KS1000Q2, KS1000Q2 - Evolution Recess: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core with factory formed flanges.

KS900EG, KS1000EG - Evolution Multi-Groove: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core with one, two or three additional equally spaced groove(s) added to external facing.

### System accessories

Requirement: KINGSPAN INSULATED PANELS system accessories colour matched to wall panels, as documented:



- Top hats.

Steel top hats maximum length 3 m. Aluminium (uncoated) top hats maximum lengths 6 m.

- Preformed insulated corners.

A range of insulated preformed corners combining insulation continuity with aesthetic design to offer an alternative solution to traditional corner flashings. The range includes curved, cranked and Z-Shaped corner panels.

### Ancillaries

Sealant tape: 6 mm x 4 mm butyl rubber.

AWP profile filler: 25 mm x 25 mm x 5 mm.

Horizontal installation:

- Base support: AWP base channel for 50, 80, 100 and 140 mm thick panels.
- Panel bearer for 50, 80, 100 and 140 mm thick panels.
- VJ2 Bubble gasket: 95 mm.
- Foam tape: 4.8 mm x 60 mm wide neoprene for high humidity applications.
- For KS900Q2, KS1000Q2 Recess: Black push gasket, Ref: EQ2-10 or EQ2-20.

### Flashings

Prefabricated flashings: Minimum 0.7 mm coated steel to AS 1397 (2021) manufactured to suit the selected external and internal sheet.

### Fasteners (non-cyclonic)

Primary: Self-tapping, self-drilling screws, manufactured from carbon steel, anti-corrosion coated and fitted with a 16 mm diameter bonded washer, for locating through the tongue section of the panel. If the tongue is removed on site, use face fixed fasteners to KINGSPAN INSULATED PANELS recommendations.

Secondary: Carbon steel stitching screws complete with bonded 14 mm diameter EPDM washers, or rivets.

Cyclonic applications: Contact KINGSPAN INSULATED PANELS technical services for recommendations and testing documentation.

## 2.6 KINGSPAN INSULATED PANELS KS1100KP KARRIER WALL PANEL

### General

KS1100KP Karrier Wall Panels are factory-engineered panel systems that provide the structural support, thermal and weather protection for direct-fix or ventilated cavity rainscreen facades. Panels can be used for both vertical or horizontal orientations.

KS1100KP Karrier Wall Panels can support the range of metallic and non-metallic Kingspan Rainscreen Facades which are available in both direct-fix and ventilated arrangements.

Compatible cassette options include:

- Dri-Design Flat, Dri-Design Tapered, Dri-Design Shadow or Dri-Design Perforated.
- Shingle
- Interlocking plank.
- Hook on Cassette.

Contact your local Kingspan specification manager for further advice and availability.

Description: Facade cladding system comprising a rainscreen fixed to pre-engineered KINGSPAN INSULATED PANELS insulated wall panels and system accessories.

KS1100KP Karrier Wall Panel: Prefinished metal skins chemically bonded to a polyisocyanurate (PIR) core.

### Ancillaries

Sealant tape: Butyl rubber:

- 6 mm x 4 mm.
- 50 mm x 1 mm.

High humidity applications:

- Foam tape: 120 mm x 2 mm EPDM.

Neutral cure gun grade silicone sealant: As required.

Sealant not supplied by KINGSPAN INSULATED PANELS. Refer to KINGSPAN INSULATED PANELS technical drawings for sealant locations.

### Fasteners (non-cyclonic)

Primary: Flush finish:

- Recessed flat head fasteners complete with bearing plate with ultra-low profile finish.
- Type, size and drilling capacity: To the manufacturer's recommendations for the type and thickness of supports and cladding panels.

Primary: Non flush finish:

- Self-tapping, self-drilling screws, manufactured from carbon steel, anti-corrosion coated and fitted with a 19 mm or 25 mm diameter embossed stainless steel or aluminium washer.

Secondary: Carbon steel stitching screws complete with bonded 14 mm diameter EPDM washers or rivets.

Rainscreen fasteners: Rivets or Fab-lock®.

Rainscreen fasteners: Contact KINGSPAN INSULATED PANELS technical services for recommendations on specific project requirements.

Cyclonic applications: Contact KINGSPAN INSULATED PANELS technical services for recommendations and testing documentation.

## 3 EXECUTION

### 3.1 GENERAL

#### Preparation

Substrates or framing: Before fixing cladding, check the alignment of substrates or framing and adjust if required.

Cladding: Make sure the cladding is clean and free of dust and loose particles.

#### Installation

Site assembly instructions are available from KINGSPAN INSULATED PANELS technical services. KINGSPAN INSULATED PANELS recommend the contractor attends the appropriate product installation training course prior to installation which is provided by KINGSPAN INSULATED PANELS Field Service Department.

Requirement: Conform to KINGSPAN INSULATED PANELS' recommendations, using KINGSPAN INSULATED PANELS approved installers for installation, including the following:

- Fasteners, laps, seals and fillers: Install as documented.
- Plumb, level, straight and to documented tolerances.
- Fixed or anchored to the building structure in conformance with the wind action loading recommendations.
- Isolated from any building loads, including loads caused by structural deflection or shortening.
- Allow for thermal movement.

Expansion and contraction of the components needs to be provided for. Temperature change due to climatic conditions must not cause harmful buckling, opening of joints, undue stress on fastening and anchors, noise of any kind or other defects.

- Site cut panels:
  - . Provide accurate, true lines with no distortion.
  - . Cut with a suitable metal cutting circular type saw and treat exposed edges with a suitable edge protection lacquer.

Refer to KINGSPAN INSULATED PANELS technical bulletin, *Method statement for the on-site cutting of insulated panels*.

- Cut openings to the minimum size necessary.
- Penetrations larger than 300 mm x 300 mm: Provide additional structural support.
- Swarf: Remove swarf and any foreign matter immediately from the external surface of panels.

Protection: Protect surfaces and finishes, including the retention of protective coatings during installation.

Fixing method: As documented or to the following:

- Steel and timber framing: Screw.

**Horizontal cladding**

Horizontal cladding surface: Slope away from visible vertical facade areas to prevent staining.

Document control joints, flashings at windows and abutments, and penetrations to the manufacturer's recommendations on the drawings. Contact KINGSPAN INSULATED PANELS for further details and limitations regarding penetrations.

**Defective and damaged parts**

Defective components: Do not install component parts which are defective, including warped, bowed, dented, chipped, scratched, abraded or broken members.

Damaged parts: Remove and replace damaged parts during installation.

**Accessories and trim**

Requirement: Provide accessories and trim necessary to complete the installation, or as documented.

**Metal separation**

Make sure of compatibility or detail separation.

See AS 1562.1 (2018) Appendix C Table C3 for guidance on the compatibility of metals. See also SA HB 39 (2015) Section 2 on material selection. It is primarily a design responsibility that incompatible metals are not documented or shown to be in contact. Preferably show the separation method on the drawings.

Corrosion can result from water run-off between incompatible surfaces. See AS 1562.1 (2018) clause 3.4.3 and AS 1562.1 (2018) Appendix C Table C4. There are four conditions to be avoided:

- Run-off from copper and copper alloys onto aluminium, zinc, galvanized, or aluminium/zinc-coated surfaces.
- Run-off from glass onto stainless steel, zinc or galvanized surfaces.
- Run-off from plastic onto zinc or galvanized surfaces.
- Run-off from inert catchment surfaces such as glazed terracotta, prepainted steel, aluminium and aluminium/zinc onto zinc or galvanized surfaces.

In marine or high humidity environments, separate green hardwood from aluminium and coated steel.

Typical methods for metal separation include:

- Applying an anti-corrosion, low moisture transmission coating such as zinc or barium chromate primer or aluminium pigmented bituminous paint to contact surfaces.
- Inserting a separation layer such as polyethylene film, adhesive tape or bituminous felt.

Requirement: Prevent direct contact between incompatible metals, and between green hardwood or chemically treated timber and aluminium or coated steel, by either of the following methods:

- Apply an anti-corrosion, low moisture transmission coating to contact surfaces.
- Insert a separation layer.

Incompatible metal fixings: Do not use.

**Joints**

Control joints: To coincide with structural movement joints and as documented.

**3.2 KINGSPAN INSULATED PANELS ARCHITECTURAL WALL PANELS****Installation**

Standard: To AS 1562.1 (2018).

**Laps, sealants and fillers**

Horizontally installed:

- Horizontal panel joint with factory applied weather seal:
  - High humidity applications: Seal internal joint with an unbroken run of sealant tape.
  - Vertical panel joint: Seal internally with two unbroken runs of sealant or bubble gasket.

Vertically installed: Vertical panel joint with factory applied weather seal:

- High humidity applications: Seal internal joint with an unbroken run of sealant tape.

Intermediate supports in high humidity applications: Seal along purlins using two unbroken runs of sealant tape or neoprene foam tape.

Refer to KINGSPAN INSULATED PANELS technical drawings for high humidity applications.

Profile fillers: Where required, seal and close joints using AWP profile fillers.

Junctions between the roof panel system and walls/penetrations: Fill using fire-rated, gun-applied canister insulation.

Flashings: Air seal flashings at laps and along the length with an unbroken bead of sealant tape.

**Fasteners (non-cyclonic)**

Contact Kingspan's technical services for advice on number of fixings required for the location and for further information on fasteners.

Primary:

- Hidden/secret fix: Locate fasteners through the tongue section of the panel. If required, cover with a flashing to maintain concealed fix appearance.

A recessed washer option is available.

Secondary: Stitch flashings at maximum 450 mm centres.

Cyclonic applications: Contact Kingspan's technical services for recommendations and testing documentation.

**3.3 KINGSPAN INSULATED PANELS KS1000RW TRAPEZOIDAL WALL PANEL****Installation**

Standard: To AS 1562.1 (2018).

**Laps, sealants and fillers**

Refer to KINGSPAN INSULATED PANELS technical drawings for high humidity applications.

Side laps with factory applied weather seal:

- High humidity applications: Seal internal joint, using an additional unbroken run of sealant tape.

External end laps:

- Lap sheeting 75 mm and weather seal using two unbroken runs of sealant tape.
- High humidity applications: Seal along purlins and intermediate supports using two unbroken runs of sealant tape or neoprene foam tape.

Profile fillers: If flashings are fixed across the profile of the panel, provide closed cell polyethylene foam fillers to seal and close the profile. Seal the top, bottom and side of profiled fillers with neutral cure, gun-grade sealant.

Junctions between the roof panel system and walls/penetrations: Fill using fire-rated, gun-applied canister insulation.

Refer to KINGSPAN INSULATED PANELS technical drawings for KS1000RW Trapezoidal Wall Panel.

Flashings: Air seal flashings at laps and along the length with an unbroken bead of sealant tape.

**Fasteners (non-cyclonic)**

Primary: Locate at every pan of the panel and at every support, or as documented.

Secondary: Stitch side laps and flashings at maximum 450 mm centres.

Cyclonic applications: Contact KINGSPAN INSULATED PANELS technical services for recommendations and testing documentation.

**3.4 KINGSPAN INSULATED PANELS EVOLUTION PANELISED FACADE (EVO) SYSTEM****Installation**

Standard: To AS 1562.1 (2018).

**Laps, sealants and fillers**

Horizontally installed:

- Horizontal panel joint in high humidity applications: Seal internal joint with an unbroken run of sealant tape.
- Vertical panel joint: Seal internally with two unbroken runs of sealant or bubble gasket.

Vertically installed: Vertical panel joint in high humidity applications:

- Seal internal joint with an unbroken run of sealant tape.

Intermediate supports in high humidity applications: Seal along purlins using two unbroken runs of sealant tape or neoprene foam tape.

Refer to KINGSPAN INSULATED PANELS technical drawings for high humidity applications.

Profile fillers: Where required, seal and close joints using AWP profile fillers.

Junctions between the roof panel system and walls/penetrations: Fill using fire-rated, gun-applied canister insulation.

Flashings: Air seal flashings at laps and along the length with an unbroken bead of sealant tape.

**Fasteners (non-cyclonic)**

Contact KINGSPAN INSULATED PANELS technical services for advice on number of fixings required for the location and for further information on fasteners.

Primary:

- Hidden/secret fix: Locate fasteners through the tongue section of the panel. If required, cover with a flashing to maintain concealed fix appearance.

A recessed washer option is available.

Secondary: Stitch flashings at maximum 450 mm centres.

Cyclonic applications: Contact KINGSPAN INSULATED PANELS technical services for recommendations and testing documentation.

**3.5 KINGSPAN INSULATED PANELS KS1100KP KARRIER WALL PANEL****Laps, sealants and fillers**

Sealants: Seal flashings and penetrations with neutral cure sealants to KINGSPAN INSULATED PANELS recommendations.

Visible facing joints: 3 mm maximum gap between tongue and groove panels.

Female joint: Install a continuous 6 mm diameter bead of non-curing gun-grade sealant in female joint on external face before installing panel.

High humidity applications:

- Panel end joints: Seal using continuous adhesive 50 mm butyl mastic tape on the external face. Apply EPDM 120 x 2 mm self-adhesive sealing tape to purlin/supporting steelwork before laying panels.

Fire-resisting panel end joints: Fill panel to panel end joints with a fire-rated, gun applied canister insulation, and over flash to KINGSPAN INSULATED PANELS' recommendations.

Flashings: Seal at laps and along the length with an unbroken bead of sealant tape.

**3.6 COMPLETION****Fasteners**

Requirement: Adjust for weathertightness without distortion of external panel face.

**Reinstatement**

Extent: Repair or replace damage to the cladding. If the work cannot be repaired satisfactorily, replace the whole area affected.

Damage to prepainted finish: Replace panels with scratches in the prepainted finish.

**Cleaning**

Requirement: Remove excess debris, metal swarf, solder, sealants and unused materials.

Exposed metal surfaces: Clean surfaces of substances that interfere with uniform weathering or oxidation.

Protection: After completion, remove protective coatings to the manufacturer's recommendations.

Protective film will withstand exposure to weather for a limited period of time before losing its peel-off characteristics and causing staining. The gloss coating changes when exposed to plasticisers.

KINGSPAN INSULATED PANELS panels: Clean surfaces to the manufacturer's recommendations.

Refer to KINGSPAN INSULATED PANELS technical bulletin, *Annual inspection and maintenance*.

**Operation and maintenance manuals**

Requirement: Prepare a manual that includes recommendations from KINGSPAN INSULATED PANELS for annual maintenance of the cladding system, including recommended methods of access, inspection, cleaning, repair and replacement.

Compliance with this clause targets the Operations and Maintenance requirement within the Minimum Expectation level of the Verification and Handover credit in Green Star Buildings (2021).

**Warranties**

Requirement: Cover materials and workmanship in the terms of the warranty from the supplier and installer.

- Form: Against failure of materials and execution under normal environment and use conditions.

- Period: As offered by KINGSPAN INSULATED PANELS.

Use only where warranties extending beyond the defects liability period are available for the particular system. As the warranty is in the form of separate material and installation warranties, the signatures of both KINGSPAN INSULATED PANELS and installer are required.

The form(s) required should be provided as part of the contract documentation.

KINGSPAN INSULATED PANELS standard warranties include paint systems and panel materials. All warranties are project specific and long term product performance can depend on many factors, including the project location, aspect to prevailing winds, proximity to bodies of water (marine or otherwise) and local site factors such as nearby industries or industrial processes.

Warranty periods: Provided the panels are installed to KINGSPAN INSULATED PANELS recommendations and installers are trained by KINGSPAN INSULATED PANELS field service manager, warranties periods are as follows:

- KS1000RW Trapezoidal Wall Panel, Evolution Panelised Facade, Architectural Wall Panel: Up to 25 years covering structural and thermal performance. Up to 15 years covering coating performance.
- KS1100KP Karrier Wall Panel: Up to 25 years covering structural and thermal performance.

**4 SELECTIONS**

**Schedules** are a tool to specify properties required for products or systems. If the principal permits documentation of the product or system by proprietary name, some of the properties may be unnecessary and can be deleted. Document the product or system's location or application here and/or on the drawings with a matching project code. Refer to NATSPEC TECHnote GEN 024 for guidance on using and editing schedules.

**4.1 PRODUCT**

**KINGSPAN INSULATED PANELS insulated wall panel schedule**

	A	B	C
Product			
Fire resistance level (FRL)			
Internal environment			
Panel width (mm)			
Panel length (m)			
External sheet: Thickness (mm)			
External sheet: Colour range			
External sheet: Colour			
Core thickness (mm)			
Internal liner sheet: Thickness (mm)			
Internal liner sheet: Colour range			
Internal liner sheet: Colour			
Product R-Value (m <sup>2</sup> .K/W) at 23°C			
Total R-Value (m <sup>2</sup> .K/W) Heat flow out (Winter)			
Total R-Value (m <sup>2</sup> .K/W) Heat flow in (Summer)			
Acoustic characteristic			
Solar absorptance			
Panel orientation			
Top hat profile			
Preformed corners			

The codes in the header row of the schedule designate each application or location of the item scheduled. Edit the codes to match those in other contract documents.

Product: Select from:

- Architectural Wall Panel: KS1000MR / KS900MR (Micro-Rib), KS1000MM / KS900MM (Mini-Micro), KS1000PL (Plank), KS1000WV / KS900WV (Wave).

- Architectural Wall Panel IPL4: KS1000 / KS900 (PL, WV, MM, MR).
- KS1000RW Trapezoidal Wall Panel: KS1000RW..
- Evolution Axis: KS1000 Evolution or KS900 Evolution.
- Evolution Recess: KS1000Q2 or KS900Q2.
- Evolution Multi-Groove: KS1000EG or KS900EG.

Fire resistance level: If required, nominate the FRL to AS 1530.4 (2014). See NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

Internal environment: Low-humidity or High-humidity.

Panel width (mm): Select from:

- Architectural Wall Panel: 1000 or 900.
- Architectural Wall Panel IPL4: 1000 or 900.
- KS1000RW Trapezoidal Wall Panel: 1000.
- Evolution Panelised Facade: 1000 or 900.

Panel length (m): Standard lengths available from 2 m to 13.7 m. Longer lengths can be supplied on request. For orders outside of Australia, maximum lengths are 11.8 m. For Evolution Recess KS1000Q2 or KS900Q2, maximum length is 8 m.

External sheet thickness (mm): Consult Kingspan when thicknesses required for the project differ from the following:

- Architectural Wall Panel KS1000 / KS900 (PL, WV, MM and MR): minimum: 0.5.
- KS1000RW Trapezoidal Wall Panel: minimum: 0.5.
- Evolution Panelised Facade KS1000 / KS900: minimum: 0.7.

External sheet - Colour range: Standard Range, High performance Range, Metallic Range.

External sheet - Colour: Contact Kingspan for available colours.

Core thickness (mm): Select from:

- Architectural Wall Panel KS1000 / KS900 (PL, WV, MM, MR): Select from 50, 80, 100, 140.
- Architectural Wall Panel IPL4 KS1000 / KS900 (PL, WV, MM, MR): Select from 80, 100, 140.
- KS1000RW Trapezoidal Wall Panel: Select from 40, 60, 70, 100, 120.
- Evolution Panelised Facade KS1000 / KS900: Select from 50, 80, 100, 140.

Internal liner sheet thickness (mm): Consult KINGSPAN INSULATED PANELS when thicknesses required for the project differ from the following:

- Minimum: 0.4.

Internal liner sheet - Colour range: Select from:

- CLEANsafe15 (standard internal liner), External Standard Range, Metallic Range.
- High humidity internal environment: AQUAsafe 55 and AQUAsafe 25 (swimming pools), or AQUAsafe.

Internal liner sheet - Colour: CLEANsafe15 (bright white liner),

Product R-value ( $m^2.K/W$ ) at 23°C: Select from manufacturer's range. AS/NZS 4859.1 (2018) requires that R-Value is declared at 23°C for insulation products sold in Australia. Select from:

- Architectural Wall Panel: KS1000MR / KS900MR (Micro-Rib), KS1000MM / KS900MM (Mini-Micro), KS1000PL, KS1000WV / KS900WV (Wave): 2.24, 3.68, 4.61, 6.47.
- Architectural Wall Panel IPL4: KS1000MR / KS900MR (Micro-Rib), KS1000MM / KS900MM (Mini-Micro), KS1000PL, KS1000WV / KS900WV (Wave): 2.24, 3.68, 4.61, 6.47.
- KS1000RW Trapezoidal Wall Panel: 1.91, 2.87, 3.36, 4.79, 5.73.
- Evolution Panelised Facade: KS900 Evolution / KS1000 Evolution (Evolution Axis), KS900Q2 / KS1000Q2 (Evolution Recess), KS900EG / KS1000EG Evolution Multi-Groove: 2.24, 3.68, 4.61, 6.47.

Acoustic characteristic: Consult with the manufacturer. Kingspan PIR panels typically have a single figure weighted sound reduction index (SRI) of  $R_w=24dB$ .

Solar absorptance: Select from manufacturer's range. Light (< 0.40), Medium (0.40 to 0.60), Dark (> 0.60). See BCA (2022) J3D8 for external walls to a Class 2 building or a Class 4 part of a building.

Panel orientation: Horizontal or Vertical.

Top hat profile for Architectural Wall Panel and Evolution Panelised Facade: Select from:

- THA: Steel with flush insert (coated).
- TH1: Aluminium with flush insert (uncoated).
- TH2: Aluminium with recessed insert (uncoated).
- TH3: Aluminium with rubber insert (uncoated).

Top hat profile for RW panels: THA.

Preformed corner: Select from Single-cranked, Double-cranked, Chamfered or Column encasement. Contact KINGSPAN INSULATED PANELS for suitability of preformed corners and information regarding limitations associated with vertical and horizontal preformed corners.

#### KINGSPAN INSULATED PANELS facade system schedule

	A	B	C
Product			
Fire resistance level (FRL)			
Internal environment			
Panel width (mm)			
Panel length (mm)			
External sheet: Thickness (mm)			
External sheet: Colour range			
External sheet: Colour			
Core thickness (mm)			
Internal liner sheet: Thickness (mm)			
Internal liner sheet: Colour range			
Internal liner sheet: Colour			
Product R-Value (m <sup>2</sup> .K/W) at 23°C			
Total R-Value (m <sup>2</sup> .K/W) Heat flow out (Winter)			
Total R-Value (m <sup>2</sup> .K/W) Heat flow in (Summer)			
Acoustic characteristic			
Solar absorptance			
Light Reflectance Value (LRV)			
Panel orientation			
External facing			

The codes in the header row of the schedule designate each application or location of the item scheduled. Edit the codes to match those in other contract documents.

Product: Karrier Wall Panel KS1100KP.

Fire resistance level: If required, nominate the FRL to AS 1530.4 (2014). See NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

Internal environment: Select from Low-humidity or High-humidity or delete if not required.

Panel width (mm): KS1100KP: 1100.

Panel length (m): Standard lengths available from 2 m to 13.7 m. Longer lengths can be supplied on request. For orders outside of Australia, maximum lengths are 11.8 m.

External sheet thickness (mm): Consult KINGSPAN INSULATED PANELS when thicknesses required for the project differ from the following:

- KS1100KP: minimum 0.5.

External sheet - Colour range:

- KS1100KP: Off white (standard).

External sheet - Colour:

- KS1100 KP: Windspray (standard).
- Contact KINGSPAN INSULATED PANELS for additional colours.

Core thickness (mm):

- KS1100KP: Select from 50, 75, 100, 125, 150, 200.

Internal liner sheet: Thickness (mm): KS1100KP: minimum: 0.5.

Internal liner sheet - Colour range: Select from:



- High humidity internal environments: AQUAsafe 55 and AQUAsafe 25 (swimming pools), or AQUAsafe.

Internal liner sheet - Colour:

- KS1100KP: Off white (standard).
- Contact KINGSPAN INSULATED PANELS for additional colours.

Product R-value (m<sup>2</sup>.K/W) at 23°C: Select from manufacturer's range. AS/NZS 4859.1 (2018) requires that R-Value is declared at 23°C for insulation products sold in Australia. Select from:

- Karrier Wall Panel KS1100KP: 2.23, 3.43, 4.6, 5.76, 6.92, 9.25.

Acoustic characteristic: Consult with the manufacturer. Kingspan PIR panels typically have a single figure weighted sound reduction index (SRI) of Rw=24dB.

Solar absorbance: Select from manufacturer's range. Light (< 0.40), Medium (0.40 to 0.60), Dark (> 0.60). See BCA (2022) J3D8 for external walls to a Class 2 building or a Class 4 part of a building.

Light Reflectance Value (LRV): If required, nominate the light reflectance value. Some local government authorities limit the light reflectance value for building exteriors. Refer to the relevant local government authority for any requirements.

Panel orientation: Horizontal or vertical.

External facing: Describe the facing material or nominate the product. Select from:

If the external facing product is not provided by KINGSPAN INSULATED PANELS, document the additional requirements in this worksection. External facings may include Metallic, Ceramic, Fibre cement, HPL and timber.

### Cladding support schedule

	A	B	C
Product			
Material			
Vertical members			
Horizontal members			
Spacing: Vertical members			
Spacing: Horizontal members			

The codes in the header row of the schedule designate each application or location of the item scheduled. Edit the codes to match those in other contract documents.

Product: Nominat proprietary items or describe the cladding support system and document the subframe to your office documentation policy. Fabricated panels are usually secret fixed to the structural support or the subframe. Cross reference *0342 Light steel framing* for the subframe or import the relevant clauses, if required.

Material: e.g. Galvanized steel, Anodised aluminium or Stainless steel appropriate to the project's location.

If using anchors or attachments cast in the concrete structure, refer to information on embedded anchors in *0432 Curtain walls* and document requirements in the selected concrete worksections.

### REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

AS 1397	2021	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS 1530		Methods for fire tests on building materials, components and structures
AS 1530.1	1994	Combustibility test for materials
AS/NZS 1530.3	1999	Simultaneous determination of ignitability, flame propagation, heat release and smoke release
AS 1530.4	2014	Fire-resistance tests for elements of construction
AS 1562		Design and installation of sheet roof and wall cladding
AS 1562.1	2018	Metal
AS/NZS 2904	1995	Damp-proof courses and flashings
AS 4040		Methods of testing sheet roof and wall cladding
AS 4040.2	1992	Resistance to wind pressures for non-cyclone regions
AS 4040.3	2018	Resistance to wind pressures for cyclone regions
AS/NZS 4284	2008	Testing of building facades
AS/NZS 4859		Thermal insulation materials for buildings
AS/NZS 4859.1	2018	General criteria and technical provisions
AS/NZS 4859.2	2018	Design
AS 5637		Determination of fire hazard properties
AS 5637.1	2015	Wall and ceiling linings

The following documents are mentioned only in the **Guidance text**:

AS/NZS 1170		Structural design actions
AS/NZS 1170.2	2021	Wind actions

AS/NZS 2312		Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings
AS 2312.1	2014	Paint coatings
AS 3959	2018	Construction of buildings in bushfire-prone areas
AS 4312	2019	Atmospheric corrosivity zones in Australia
AS 5113	2016	Classification of external walls of buildings based on reaction-to-fire performance
AS ISO 9705	2003	Fire tests - Full-scale room test for surface products
SA HB 39	2015	Installation code for metal roof and wall cladding
BCA C1P2	2022	Fire resistance - Fire resistance - Spread of fire
BCA C1V3	2022	Fire resistance - Fire resistance - Fire spread via external walls
BCA C2D10	2022	Fire resistance - Fire resistance and stability - Non-combustible building elements
BCA F3D5	2022	Health and amenity - Roof and wall cladding - Wall cladding
BCA F3P1	2022	Health and amenity - Roof and wall cladding - Weatherproofing
BCA H1D7	2022	Class 1 and 10 buildings - Structure - Roof and wall cladding
BCA J3D8	2022	Energy efficiency - Elemental provisions for a sole-occupancy unit of a Class 2 building or a Class 4 part of a building - External walls of a sole-occupancy unit of a Class 2 building or a Class 4 part of a building
BCA Section C	2022	Fire resistance
BCA Spec 7	2022	Fire resistance - Fire hazard properties
BCA Table S7C7	2022	Fire resistance - Fire hazard properties - Other materials - Other materials
ABCB Fire performance	2020	Fire performance of external walls and cladding advisory note
BlueScope TB-01A	2023	Steel roofing products - Selection guide
BlueScope TB-01B	2022	Steel walling products - Selection guide
GBCA Buildings	2021	Green Star Buildings
NATSPEC DES 003		Fire hazard properties of insulation and pliable membranes
NATSPEC DES 018		Bushfire protection
NATSPEC DES 020		Fire behaviour of building materials and assemblies
NATSPEC DES 031		Specifying R-Values
NATSPEC DES 044		Weatherproofing of external walls
NATSPEC GEN 006		Product specifying and substitution
NATSPEC GEN 024		Using NATSPEC selections schedules
NATSPEC TR 01		Specifying ESD