

0431P STRAMIT IN CLADDING – COMBINED

Branded worksection

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Worksection abstract

This branded worksection *Template* is applicable to lightweight external wall cladding, including STRAMIT profiled sheet metal products.

How to use this worksection

Customise this worksection *Template* for each project. See A guide to NATSPEC worksections (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 editing 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.*
- *0437 Cladding – insulated panel systems.*

Related branded worksections include:

- *0311p STRAMIT Condeck in concrete formwork.*
- *0341p STRAMIT purlins and girts in structural steelwork.*
- *0423p STRAMIT roofing – profiled sheet metal.*

Material not provided by STRAMIT

This branded worksection includes generic material which may not be provided by the Product Partner including:

- Autoclaved aerated concrete (AAC) panels, aluminium weatherboards, composite, compressed fibre cement (CFC), exterior insulation and finish system (EIFS), fibre cement (FC) planks, hardboard planks, insulated panel systems, plastic sheets, plywood sheets, seamed sheet metal cladding, terracotta panels and tiles, and timber weatherboards

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) (m².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, 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

The following may be specified by retaining default text:

- Renewable materials with low embodied energy such as timber weatherboards and plywood cladding.

The following may be specified by including additional text:

- Maximising life cycle of materials, e.g. by selecting naturally durable hardwood.
- Timber species with natural resistance to termites.
- Timber from a sustainable source.
- Metal cladding manufactured from recycled metal and/or is recyclable.
- Metal cladding finished with low VOC or non-VOC finish.
- Anti-bacterial finish that inhibits growth of bacteria.
- Polycarbonate, which is recyclable.

Refer to NATSPEC TECHreport TR 01 on specifying ESD.

1 GENERAL

We're one of Australia's leading manufacturers and suppliers of roll-formed steel building products – and for good reason. For everything steel roofing, rainwater or structural, you can count on Stramit. We work with clients from specification stages to installation. With our national network, the backing of Fletcher Building, our national network, state-of-the-art R&D facility and rigorous product testing, you can kick off your next project with confidence. When you work with Stramit, you can consider the job done.

1.1 RESPONSIBILITIES

General

Requirement: Provide STRAMIT external wall 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

STRAMIT technical contacts

Website: www.stramit.com.au/resources/technical-services.

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

Website: www.stramit.com.au/products/roofing-and-wall-cladding/.

1.5 INTERPRETATION

Abbreviations

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

- AAC: Autoclaved aerated concrete.
- ACP: Aluminium composite panel.
- CCA: Copper chrome arsenate.
- CFC: Compressed fibre cement.
- EIFS: Exterior insulation and finish system.
- EPS: Expanded polystyrene.
- EPS-FR: Expanded polystyrene-fire retardant.
- FC: Fibre cement.
- GRP: Glass fibre reinforced polyester.
- LOSP: Light organic solvent preservative.
- MRF: Mineral fibre.
- PF: Phenolic foam.
- PIR: Rigid polyisocyanurate foam.
- PUR: Rigid polyurethane foam.
- XPS: Extruded polystyrene.

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

1.6 TOLERANCES

Permitted deviations

Flat sheet and panel cladding: To the manufacturer's recommendations.

Insulated panel systems: To the manufacturer's recommendations.

Plank and weatherboard cladding: 5 mm from a 1.8 m straightedge or to manufacturer's recommendations.

Profiled metal sheet cladding: To AS 1562.1 (2018) clause 4.2.3.

Structural steelwork for wall cladding: ± 5 mm between bearing planes of adjacent supports.

1.7 SUBMISSIONS

Fire performance

Combustibility: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE**, **Error! Reference source not found.**

Fire hazard properties: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE**, **Error! Reference source not found.**

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).
- Resistance to impact to AS/NZS 4040.5 (1996).

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

Refer to AS 1562.3 (2006) clause 5.3 for resistance of plastic cladding to wind pressure for cyclone regions.

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.

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 suppliers and installers.

Evidence of experience: [complete/delete]

e.g. Check conditions of warranty for panels selected. Delete if supplier/installer details are not required.

Warranties

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

1.8 INSPECTION

Notice

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

- Wall supports before covering up or concealing.
- Framing, pliable membranes and insulation before covering up or concealing.

Wall supports typically include structural steel and wall girts, which require sign off from a professional structural engineer before cladding of the wall structure.

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

Requirement: Store and handle materials to the manufacturer's recommendations and the following:

- Protect materials including edges and surfaces from damage.
- Keep dry and unexposed to weather.
- Do not drag sheets or panels across each other or over other materials.
- AAC panels: Stack on edge, support off the ground and level to avoid sagging and damage to ends, edges and surfaces.
- Composite panels: Store unpacked panels by size in racks and protect from scratching, warping or bending.
- Sheeting: Stack flat and off the ground on at least 3 evenly placed bearers.

- Store metal materials away from uncured concrete and masonry on a level base.
- Do not store metal materials in contact with other materials that may cause staining, denting or other surface damage.
- Use gloves when handling precoated metal cladding material.

Stramit recommends that cladding sheets should be laid flat or on girts spaced no more than 600 mm apart, to prevent warping and bowing. If stored outside cover with waterproof tarps or plastic sheeting to prevent water pooling.

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: Provide components, as documented.

Document in 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.

Fasteners and ties: Type, size, corrosion resistance class and spacing to the cladding manufacturer's recommendations.

Flashings: To AS/NZS 2904 (1995).

Coordinate with *042 Roofing* worksections.

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 *ABCB Fire performance of external walls and cladding advisory note (2020)*.

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 m²/kg or a smoke growth rate index not more than 100 as determined by AS 5637.1 (2015).

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). 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:

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

See also BCA (2022) Table S7C7.

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 AUTOCLAVED AERATED CONCRETE (AAC) PANELS**General**

Requirement: Proprietary AAC panels.

Standard: To AS 5146.1 (2015).

Joint adhesive: Proprietary adhesive to the manufacturer's recommendations.

Sealant: Flexible sealant to the manufacturer's recommendations.

Make sure sealants are compatible with the coating system.

2.4 ALUMINIUM WEATHERBOARDS**General**

Requirement: Proprietary prefinished aluminium weatherboards.

Select a finish appropriate to the location and durability requirements.

Standard: To AS/NZS 1734 (1997).

Finishes

Anodising: To AS 1231 (2000).

- Thickness: ≥ 15 microns to 20 microns.

25 micron thick anodising is recommended for severe conditions.

2.5 COMPOSITE PANELS**General**

Requirement: Proprietary panels comprising prefinished skins continuously laminated over a panel core, as documented.

Edit to suit the panel skin and core material or schedule in SELECTIONS.

Panel joints and control joints: Integral.

Flexible sealant: Non-staining to the manufacturer's recommendations.

Aluminium composite panels (ACPs)

Product identification: Permanent labelling to SA TS 5344 (2019).

SA TS 5344 (2019) sets out requirements for information to be marked on the product, including location, format and durability of the markings.

2.6 COMPRESSED FIBRE CEMENT (CFC) CLADDING**General**

Requirement: Proprietary compressed fibre cement sheets.

Standard: To AS/NZS 2908.2 (2000) and the following:

- Type A Category 5.

Document the cladding by type and category to AS/NZS 2908.2 (2000) or delete and select by product name in SELECTIONS.

Finish: Smooth and even with factory sealed edges, free of imperfections such as chips.

Edge profile: Square.

Sealant and bond breaking tape: To the manufacturer's recommendations.

2.7 EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)**General**

Requirement: Proprietary system comprising rigid insulation panels, fixed to a subframe and finished on one or both sides with a cementitious base coat and finish coat.

2.8 FIBRE CEMENT (FC) PLANKS

General

The NCC allows fibre cement sheeting to be used as a non-combustible material and 12 mm sheet to AS/NZS 2908.2 (2000) as a fire-protective covering under NCC (2022) Schedule 1.

Requirement: Proprietary single faced fibre cement building planks.

Standard: To AS/NZS 2908.2 (2000) and the following:

- Type A Category 3.

Document the cladding by type and category to AS/NZS 2908.2 (2000) or delete and select by product name in SELECTIONS.

Corners: Preformed metal joining pieces.

2.9 FIBRE CEMENT (FC) SHEETS

General

Requirement: Proprietary single faced fibre cement sheets.

Includes systems with flush set joints finished with a textured coating to give a jointless appearance.

Standard: To AS/NZS 2908.2 (2000) and the following:

- Type A Category 3.

Document the cladding by type and category to AS/NZS 2908.2 (2000) or delete and select by product name in SELECTIONS.

Finish: Smooth and even, free of imperfections such as chips.

Sealant and bond breaking tape: To the manufacturer's recommendations.

2.10 HARDBOARD PLANKS

General

AS/NZS 1859.4 (2018) defines wet-process fibreboard (including hardboard) as panel material with a nominal thickness of 1.5 mm or greater, manufactured from lignocellulosic fibres (derived from hardwood or other materials) with application of heat and/or pressure, the bond of which is derived from the felting of the fibres and the panels are manufactured with a forming moisture content greater than 20%.

Requirement: Proprietary wet process fibreboard planks.

Standard: To AS/NZS 1859.4 (2018).

Classification: Exterior.

Plank thickness: 9.5 mm.

External corners: Preformed metal joining pieces.

Internal corners: Scribed.

2.11 INSULATED PANEL SYSTEMS

General

Description: Proprietary panels comprising prefinished metal skin factory-bonded to both faces of an insulating core, as documented.

Edit to suit the panel skin and core material or schedule in SELECTIONS.

Panel joints and control joints: Integral.

Insulation core

The most common cores used in insulated sandwich panel construction are expanded polystyrene-fire retardant (EPS-FR), rigid polyurethane foam (PUR), rigid polyisocyanurate foam (PIR), extruded polystyrene (XPS) and polystyrene phenolic hybrid syntactic (SPS), and mineral fibre (MRF) or rock fibre.

Standard: To AS/NZS 4859.1 (2018):

- Rigid cellular foam insulation (EPS, PF, PIR, PUR and XPS): To AS/NZS 4859.1 (2018) Section 8.

AS/NZS 4859.1 (2018) categorises insulation as follows: Formed shapes, Formed in situ, Compressible, Loose fill, IR reflective and Vacuum panels.

Insulation blowing agents

Restricted agents: Conform to PRODUCTS AND MATERIALS, **GENERAL**, **Prohibited materials** in 0171 *General requirements*.

Internal and external skins

Factory pre-coating: Polyester to a dry film thickness of 25 microns.

25 microns may not be suitable for marine or aggressive environments (including internal environments such as swimming pools or processing plants). Consult manufacturers for alternative coatings.

Profile: Internal and external panel profiles as documented.

System accessories

Requirement: Proprietary insulated cladding system accessories colour matched to panels, as documented.

Sealants

Materials: Non-staining and to the manufacturer's recommendations.

2.12 PLASTIC SHEETS**General**

If a product is nominated edit the material descriptions below.

Requirement: Proprietary plastic sheets.

Unplasticised polyvinyl chloride (PVC-U) sheet: To AS 4256.4 (2006).

Glass fibre reinforced polyester (GRP) sheet: To AS 4256.3 (2006).

Polycarbonate: To AS 4256.5 (2006).

Select extruded PVC-U, GRP or polycarbonate. Delete references not required.

2.13 PLYWOOD SHEETS**General**

Requirement: Proprietary plywood sheets.

Standard: To AS/NZS 2271 (2004).

AS/NZS 2271 (2004) cites AS/NZS 2754.1 (2016) for adhesive Bond Type.

Marine plywood to AS/NZS 2272 (2006) has the internal veneers laid up without gaps or knots, and is bonded with the same grade of adhesive as waterproof ply for external use. The cost difference is substantial but could be justified for extreme applications.

Bond: Type A.

Presealed plywood: Sides and edges presealed with a machine applied sealer.

Visible surfaces with a clear finish: Veneer quality A.

Other visible surfaces: Veneer quality B.

Hidden surfaces: Veneer quality C or D.

Formaldehyde emission class: [complete/delete]

Select from E₀ to E₃. See AS/NZS 2271 (2004) clause 1.11.

Compliance with this subclause targets the Engineered Wood Products requirement for structural plywood within the Minimum Expectation level of the Exposure to Toxins credit in Green Star Buildings (2021):

- Structural plywood: 1.0 mg/L, (E₁).

Identification: Sheets labelled under the authority of a recognised certification scheme to *0185 Timber products, finishes and treatment*.

Nominate relevant certification schemes in *0185 Timber products, finishes and treatment*.

Fasteners

LOSP treated timber and non-corrosive timber cladding: Hot-dip galvanized steel.

CCA treated timber and corrosive timber cladding (including western red cedar or redwood): Stainless steel Type 316 or silicon bronze.

2.14 STRAMIT PROFILED SHEET METAL**General**

Requirement: To the **STRAMIT profiled sheet metal cladding schedule** .

Design and installation: To AS 1562.1 (2018).

AS 1562.1 (2018) requires materials to conform to the following standards:

- Steel: AS 1397 (2021) for continuously hot-dip metallic-coated sheet and strip or AS/NZS 2728 (2013) for prepainted and organic film/metal laminate products.

Fasteners

General: Type, size, corrosion resistance class and spacing to the cladding manufacturer's recommendations.

Finish for exposed fasteners on coloured cladding: Prefinish exposed fasteners with an oven baked polymer coating to match the cladding material.

Fasteners to timber battens: Provide fasteners long enough to penetrate the thickness of the batten without piercing the underside.

2.15 SEAMED SHEET METAL

General

Description: Sheet metal roll formed into pan profiles, laid with seamed joints on a breathable waterproof membrane on flush finished, continuous plywood sheathing or to manufacturer's recommendations.

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).

Plywood sheathing

Standard: To AS/NZS 2269.0 (2012):

- Surface grade: D.

AS/NZS 2269.0 (2012) defines five veneer qualities A, S, B, C and D, the lowest grade.

- Bond: Type A.
- Formaldehyde emission class: E₁.

Super E₀ and E₀ class may be available at additional cost and lead time. A formaldehyde emission class E₁ or less can improve indoor air quality.

Compliance with this subclause targets the Engineered Wood Products requirement for structural plywood within the Minimum Expectation level of the Exposure to Toxins credit in Green Star Buildings (2021):

- Structural plywood: 1.0 mg/L, (E₁).

Thickness: 15 mm.

Identification: Sheets labelled under the authority of a recognised certification scheme to *0185 Timber products, finishes and treatment*.

Nominate the relevant certification schemes in *0185 Timber products, finishes and treatment*.

Underlayer

Requirement: Breathable waterproof membrane to internal face of cavity when cladding including a plywood or FC substrate, is installed as a vented cavity or rainscreen system. Minimum 40 mm ventilation gap between substrate and framing.

Separation layer

Requirement: Breathable waterproof membrane between cladding material and substrate.

Accessories

Solder (tin/lead): 40/60 soft solder.

Flux: Z-04-S.

Sealant: 100% neutral cure non-acid based silicone rubber to match cladding.

Fasteners: Provide starter clips, fixing clips and fastenings as recommended by the cladding system supplier.

2.16 TERRACOTTA PANELS AND TILES

General

Requirement: Proprietary cladding system comprising prefinished, fired, extruded clay panels and mechanical fixing system.

Finish: Smooth or profiled factory finish, free of imperfections such as chips.

Edge profile:

- Vertical: square.
- Horizontal: tongue and groove.

Suspension rails: Proprietary aluminium, galvanized steel or stainless steel extrusions.

Accessories: Proprietary powder coated aluminium profiles to the manufacturer's recommendations.

2.17 TIMBER WEATHERBOARDS

General

Hardwood: To AS 2796.1 (1999).

- Grade: To AS 2796.2 (2006).

Seasoned cypress pine: To AS 1810 (1995).

Softwood: To AS 4785.1 (2002).

- Grade: To AS 4785.2 (2002).

Fasteners

LOSP treated timber and non-corrosive timber cladding: Hot-dip galvanized steel.

CCA treated timber and corrosive timber cladding (including western red cedar or redwood): Stainless steel Type 316 or silicon bronze.

Hardwood cladding: Bullet head and plain shank nails, if the cladding is painted and nails are punched and stopped.

Softwood cladding: Flat head and plain shank nails, if cladding is painted.

CCA treated softwood cladding: Deformed shank (ring or annular) flat head nails.

Unpainted cladding/framing joints: Do not use machine driven T head nails.

T head nails will work loose.

3 EXECUTION

3.1 GENERAL

Preparation

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

Flexible underlay: Check that the underlay or insulation is restrained.

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

Installation

Requirement: Install cladding as follows:

- Fix sheeting firmly against framing to the manufacturer's recommendations.

Select either direct fixed cladding or a ventilated cavity/rainscreen construction to conform to the manufacturer's recommendations. Document a certified system or a project based performance solution.

- 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.

Cladding layout: Cut/fabricate and install cladding to suit the layout as documented.

Document the location of openings and penetrations to avoid waste and panel handling times.

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

Accessories and trim

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

Corner flashing for profiled and seamed metal sheets: Finish off at corners with purpose-made folded flashing strips.

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.

Horizontal cladding

Horizontal cladding surface:

- Minimum slope: 1:15.
- Staining: Slope away from visible vertical facade areas to prevent staining.

Defective and damaged parts

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

Damaged parts: Remove and replace damaged parts during installation.

3.2 AAC PANEL CLADDING

Installation

Standard: To AS 5146.3 (2018).

Joint adhesive: Apply to vertical and horizontal joints. Remove excess adhesive from the face after panels are butted together.

Sealant: Caulk control joints, gaps between panels and infill or penetration framing with flexible sealant.

Typically a backing rod is used to control the depth of sealant and the sealant is bonded on two sides only. Panels may require some preparation and/or priming depending on the type of sealant.

Vertical joints: Finish flush.

Cracking: For render finishes, minimise cracking at joints to the manufacturer's recommendations.

When the coating system is sand/ cement render and paint finish, use mesh at external corners, corners of splays and joints other than control joints.

3.3 COMPOSITE PANEL CLADDING

General

Fabrication: Factory fabricate panels and elements wherever possible.

Installation: To the manufacturer's recommendations.

Document panel layout or approve shop drawings.

Joints

Requirement: Rigidly secure joints other than movement joints. Fabricate joints to the manufacturer's recommendations or as documented.

Arrangement: Set out in even panels with joints coinciding with framing or as documented.

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

Fixing

Requirement: Mechanically fix panels to supporting frame and to the manufacturer's recommendations.

See BCA (2022) C2D15 for fixing of bonded laminated cladding panels.

3.4 CFC SHEET CLADDING

Joints

Control joint:

- Locate between the panel and fixing system and the supporting structure, as documented.
- Sheet edges: Square cut.
- Sealant: Do not apply finish coating over joint sealants.

Prefinished metal backing/jointing strip: Fix proprietary backing strip to the rear face of the panel with proprietary closed cell self-adhering foam and horizontal gasket.

- Seal the joint with a 3 mm epoxy fillet.

Vertical joints: Vertical gasket or prefinished jointing strip to framing member.

Arrangement: Set out in even panels with joints coinciding with framing or as documented.

Fixing

General: Screw fix to proprietary framing supports at centres to the manufacturer's recommendations.

Concealed fixings:

- Pre-drill oversized holes.
- Countersink so that the top of the screw is 2 to 3 mm below the surface.
- Finish: Stop screw heads with epoxy filler. Smooth and level upon application and sand flush after curing.

3.5 EIFS CLADDING

Joints

Requirement: Close butt. Make sure joints are supported and finished level.

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

- Sealant: Do not apply finish coating over joint sealants.

Installation

Trim: Install PVC-U around windows, along bottom of walls and at external corners.

Junctions: Make sure junctions are effectively sealed when installing PVC-U or other rigid window flashings.

Saddle and back flashings: Install before fixing the panels.

Parapet and cap flashings: Complete as soon as practicable after finishing the system.

Finishing

Preparation: Remove any oxidation from polystyrene before plastering.

Base coat reinforcement: Embed alkali resistant fibreglass reinforcing mesh into the wet base coat.

Render and texture finish: Apply render and texture finish coats to the manufacturer's recommendations.

3.6 FC SHEET CLADDING

Joints

Control joints:

- Locate between the panel and fixing system and the supporting structure, as documented.
- Sheet edges: Square cut.
- Sealant: Do not apply finish coating over joint sealants.

Arrangement: Set out in even panels with joints coinciding with framing or as documented.

Fixing

General: Corrosion-resistant nails or screws to the manufacturer's recommendations.

Eaves and soffit lining: Fix at 150 mm centres to soffit bearers at a maximum of 450 mm centres.

3.7 INSULATED PANEL SYSTEMS

Site cut panels

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 proprietary edge protection lacquer.
- Cut openings to the minimum size necessary.

Penetrations larger than 300 x 300 mm: Provide additional structural support.

Swarf: Remove swarf and any foreign matter immediately from the external surface of panels.

Joints

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

Fixing

Requirement: Mechanically fix panels to supporting frame and to the manufacturer's recommendations.

See BCA (2022) C2D15 for fixing of bonded laminated cladding panels.

3.8 PLASTIC SHEET CLADDING

Installation

Standard: To AS 1562.3 (2006).

3.9 PLYWOOD SHEET CLADDING

Preparation

Requirement: Cut sheets to suit the layout, as documented.

Cut edges: Seal before fixing and install facing upwards.

If working with CCA or LOSP treated plywood, reseal cuts with brush-on remedial treatments.

Bottom edges: Prime or pre-coat before fixing.

Installation

Layout for sheets with shiplap joints: Start at a corner and install shiplap joints facing away from the prevailing weather.

Labels: Install panels so that any certification scheme labels are concealed.

Joints

Movement allowances:

- Between sheets: 2 mm minimum gap. Apply elastomeric sealant.
- Between the bottom of sheets and flashings: 5 mm gap.

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

Fixing

Timber frames: 12 mm thick sheets:

- Nails: 40 x 2.5 mm.
- Screws: No. 8 x 40 mm.

Steel frames: 12 mm thick sheets:

- 1.5 mm steel: 10 gauge to 16 thread pitch x 45 mm screws.
- 2.8 mm steel: 10 gauge to 16 thread pitch x 45 mm screws.

Nail fixing centres:

- Edges: At 150 mm centres and not less than 9 mm from sheet edge.
- Intermediate framing: At 300 mm centres.
- Sheet corners: Not less than 50 mm from corner on vertical edges.

Finish: Flush with surface. Do not punch.

Shiplap joint top lap: Do not nail.

3.10 STRAMIT PROFILED SHEET METAL

General

Installation: To AS 1562.1 (2018).

Ground clearance: Maintain documented clearance.

Cutting sheets: Wherever possible, factory cut to length. Do not use an abrasion disc.

Accessories: Provide material with the same finish as cladding sheets.

Swarf: Remove swarf and other debris as soon as it is deposited.

Fixing

Fixing method: Proprietary concealed clips and fasteners, as recommended by the manufacturer.

Fixing start location: [complete/delete]

Note the elevation that will allow fixing to proceed from leeward to the windward of prevailing wind.

Joints

Expansion joints: [complete/delete]

As a minimum, expansion joints should be provided every 35 m in sheet length for walls with concealed fixings and 24 m in sheet length for walls with exposed fixings. Refer to manufacturer's recommendation.

3.11 SEAMED SHEET METAL CLADDING

Plywood sheeting

Installation: Lay the length of the sheets at right angles to the supports.

End joints: Stagger the end joints and locate centrally over framing members.

Edge support: If panels are not tongue and grooved, provide noggings or trimmer joists to support the edges.

Fixing: 300 mm centres to each support:

- Timber: Adhesive and nail.
- Steel: Metallic-coated self-drilling/tapping screws with the heads finishing below the surface.

Control joints: 12 mm gap at abutting building elements.

Detail the assembly to provide a 25 mm air gap between the plywood and insulation. Refer to manufacturer's recommendations.

Fabrication

Requirement: Factory fabricate pans.

Installation: To AS 1562.1 (2018).

Ground clearance: Maintain documented clearance.

Cutting sheets: Wherever possible, factory cut to length. Do not use an abrasion disc.

Accessories: Provide material with the same finish as cladding sheets.

Minimum bending radius: 1.75 mm.

Swarf: Remove swarf and other debris as soon as it is deposited.

Fixing

Requirement: Fix pans to the sheeting with concealed clips at 250 mm maximum centres or to manufacturer's recommendations.

Seams

Walls: Single angle standing seams.

3.12 TERRACOTTA PANELS AND TILES

Installation

Set-out: Confirm set-out before starting the installation. Minimise cut panels and tiles.

Substrate: Install proprietary suspension rails to manufacturer's details over pliable membrane. Use fasteners conforming to wind load requirements.

Panels and tiles: Install to manufacturer's recommendations.

Trim: Install proprietary trim and flashings.

3.13 TIMBER WEATHERBOARD CLADDING

Preparation

Preservative treatment: For cladding with a natural or stained finish, prefinish the boards by dipping or brushing with water repellent preservative.

Compatibility: Make sure preservative is compatible with the documented pigmented stain finish.

Cut surfaces: Treat freshly cut surfaces with water repellent preservative before fixing.

Installation

It is assumed that fixings and treatment of joints and junctions with other elements, for example, windows are documented elsewhere. Add to or amend as required. To avoid moisture uptake, detail boards to finish at least 150 mm above finished ground level.

Single lengths: If installed vertically, use single lengths. If installed horizontally, use single lengths whenever possible.

Edge finish to lowest board: Cut the bottom edge of the lowest board to slope inwards and upwards at an angle of 15°.

This assists the shedding of water away from the cladding.

Fixing

Fixings at supports:

- Seasoned milled weatherboards: 2.
- Unseasoned hardwood, sawn weatherboards, or secret nailed profiles: 1.
- Do not fix through the overlap of adjacent weatherboards.

Nailheads: Treat visible nailheads as follows:

- Stained or clear finishes: Drive flush with weatherboard surface.
- Opaque finishes: Punch below the weatherboard surface and fill flush with putty after the surface has been primed.

Joints

Overlapping joints: Lap boards at least 30 mm.

End grain joints: Install boards so that butt joints are in compression. Fix all board ends to support framing. Stagger joints vertically or as documented.

Internal and external corners: Butt against a stop bead that projects at least the thickness of the cladding.

Alternatively, mitre external and scribe internal corners.

Timber boards abutting masonry: Leave a gap between boards and masonry to prevent moisture uptake.

Alternatively, seal the ends and protect the joint by a cover strip set in mastic.

3.14 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.

Contact Stramit for further details on reinstatement methods of scratched profiled steel cladding.

BlueScope does not recommend the use of touch-up paint to repair damage or scratches to the painted surface of COLORBOND® or ZINCALUME® steel. See BlueScope TB-02 (2022).

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: Remove protective coatings using methods required by the manufacturer after completion.

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.

Panels: Clean surfaces with soft, clean cloths and clean water to the manufacturer's recommendations.

Operation and maintenance manuals

Requirement: Prepare a manual that includes the manufacturer's published use, care and maintenance requirements.

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 in the form of interlocking warranties from the manufacturer and the installer.

- Form: Against failure of materials and execution under normal environment and use conditions.
- Period: As offered by the manufacturer and the installer.

Use only if warranties extending beyond the defects liability period are available for the particular system. Insert the required warranty period and terms, which should be negotiated beforehand. If the warranty is in the form of separate material and installation warranties, the signatures of both manufacturer and installer are required.

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

BlueScope has an internet based system Warranty Estimator and Management System that allows access to warranty advice for Zinalume® and Colorbond® products and sample warranties at www.warranties.bluescopesteel.com.au/site/.

For ZAM® and Magnaflow® product warranties, contact your local Stramit office, as these are offered to projects determined by exposure conditions.

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 PERFORMANCE

Cladding performance schedule

	A	B	C
Combustibility			
Fire hazard property: Group number			
Fire hazard property: Spread-of-Flame Index			
Fire hazard property: Smoke-Developed Index			
Fire-resistance level (FRL)			
R-Value (m ² .K/W)			
Acoustic characteristic			
Solar absorptance			
Light Reflectance Value (LRV)			

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.

Combustibility: e.g. Non-combustible.

Fire hazard property: Group Number: Refer to BCA (2022) Spec 7.

Fire hazard property: Spread-of-Flame Index: e.g. 0.

Fire hazard property: Smoke-Developed Index: e.g. 3.

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

R-Value (m².K/W): 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.

Acoustic characteristic: Consult manufacturer. Schedule values if required.

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.

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.

4.2 PRODUCT SCHEDULES

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: Nominate 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.

AAC panel cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Edge profile			
Coating system			
Panel orientation			
Trim			
Control joint width (mm)			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. Waterproof direct fix, top hat framing, ventilated cavity/rainscreen.

Thickness (mm): e.g. 75 mm, 100 mm.

Length (mm): e.g. 1200 mm to 4200 mm.

Width (mm): e.g. 600 mm.

Edge profile: e.g. Smooth (square edge), Tongue and groove (T&G).

Coating system: AAC is porous and an appropriate coating is required to prevent water penetration. Use proprietary flexible coating systems recommended by the manufacturer and coordinate with *0672 Textured and membrane coatings*. If painting, only use acrylic based paints.

Control joint width (mm): 10 mm for vertical control joints, 15 mm for horizontal control joints.

Panel orientation: Horizontal or Vertical.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with *042 Roofing* worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

Aluminium weatherboard cladding schedule

	A	B	C
Product			
Fixing system			
Mounting			
Profile			
Profile depth (mm)			
Length (mm)			
Finish			
Colour			
Trim			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. waterproof direct fix, top hat framing, ventilated cavity/rainscreen.

Mounting: Horizontal or Vertical.

Profile: Refer to the manufacturer's options.

Profile depth (mm): Refer to the manufacturer's options.

Finish: e.g. Anodised or Powder coated. Refer to *0183 Metals and prefinishes* or *0673 Powder coatings*.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with *042 Roofing* worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

Composite panel cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Skin material			
Skin thickness (mm)			
Core material			
Surface finish			
Colour			
Panel edge treatment			

	A	B	C
Panel joint			
Trim			
Control joint width (mm)			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: Nominate associated fixing system as documented on the drawings, e.g. direct fix, ventilated /rainscreen, flat stick method, fixed cassette system, hanging method.

Skin material: e.g. Timber veneer, Aluminium, Steel, Zinc or High pressure laminate (HPL).

Core material: e.g. Expanded polystyrene (EPS), Rigid polyurethane (PUR), Rigid polyisocyanurate (PIR), Low density polyethylene (LDPE), Mineral fibre, etc. See also BCA (2022) Spec 7 for related material on fire hazard properties of linings, materials and assemblies and NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

Surface finish: e.g. Anodised, Polyester powder coated, Polyvinylidene fluoride (PVDF), Fluoroethylene monomer vinyl ether monomer (FEVE).

Panel edge treatment: e.g. Folded, as documented on the drawings.

Panel joint: e.g. Interlocking, Mineral fibre edge strip.

Control joint width (mm): Consult manufacturer.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

CFC sheet cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Finish			
Colour			
Joints			
Panel edge treatment			
Corners			
Soffit lining perforations			
Trim			
Control joint width (mm)			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit. For flush-set systems; select the appropriate pre-primed sheets with recessed edges.

Fixing system: e.g. Waterproof direct fix, top hat framing, ventilated cavity/rainscreen.

Thickness (mm): 9 mm minimum depending on product selection.

Finish: If prefinished, select from the manufacturer's options, e.g. Two-pack fluoropolymer, and choose the colour. If site painted, refer to 0671 Painting or 0672 Textured and membrane coatings.

Joints: If not shown on drawings. e.g. Set joint, Prefinished metal backing/joint strip, EPDM gasket, Sealant joint with backing rod, Painted frame with bond breaker.

Panel edge treatment: e.g. Prefinished to match face.

Corners: If not shown on drawings. Select from Moulding (e.g. preformed shadow metal trim) or Butt jointed (taped and set).

Soffit lining perforations: Nominate pattern, perforation percentage and diameter.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

EIFS cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Core material			
Base coat			
Finish coat			
Colour			
Trim			
Control joint width (mm)			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. Direct fix or Batten cavity.

Core: e.g. Expanded polystyrene (EPS) insulation or Extruded polystyrene (XPS) insulation.

Base coat: Document a base coat and mesh system.

Finish coat: Document a render finish recommended by the manufacturer in 0611 *Rendering and plastering* and cross reference it, or import the material here. Alternative finishes include: brick slips, tiles or decorative boards.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

FC plank cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Texture			
Width (mm)			
Length (mm)			
Joints			
Finish			
Trim			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. waterproof direct fix, top hat framing, ventilated cavity/rainscreen.

Thickness: e.g. 7.5 mm, 9 mm.

Joints: e.g. On-stud, Butt, Clip, PVC-U extrusion, Concealed, Aluminium.

Finish: e.g. Painted or Coated. Refer to *0671 Painting* or *0672 Textured and membrane coatings*.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with *042 Roofing* worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

FC sheet cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Finish			
Colour			
Joints			
Edge profile			
Panel edge treatment			
Corners			
Soffit lining perforations			
Trim			
Control joint width (mm)			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit. For flush-set systems; select the appropriate pre-primed sheets with recessed edges.

Fixing system: e.g. Waterproof direct fix, top hat framing, ventilated cavity/rainscreen.

Thickness:

- FC sheets: 6 mm, 7.5 mm and 9 mm.
- Soffit and eaves lining minimum: 4.5 mm.

Finish: If prefinished, select from the manufacturer's options, e.g. Two-pack fluoropolymer, and choose the colour. If site painted, refer to *0671 Painting* or *0672 Textured and membrane coatings*.

Joints: If not shown on drawings. e.g. Flush-set recessed joints (for textured finish systems), Prefinished metal backing/joint strip, EPDM gasket, PVC H-mould, PVC or timber cover moulds, Sealant joint with backing rod, Painted frame with bond breaker.

Edge profile: Square or Recessed (for flush-set joints).

Panel edge treatment: e.g. Prefinished to match face.

Corners: If not shown on drawings. Select from Moulding (e.g. preformed shadow metal trim) or Butt jointed (taped and set).

Soffit lining perforations: Nominate pattern, perforation percentage and diameter.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with *042 Roofing* worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

Hardboard plank cladding schedule

	A	B	C
Product			
Fixing system			
Bending strength			
Texture			
Width (mm)			
Length (mm)			
Joints			
Finish			
Trim			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. Waterproof direct fix, batten framing, ventilated cavity/rainscreen.

Bending strength: e.g. L (low), M (medium) or H (high).

Texture: e.g. Smooth, Rough sawn.

Width (mm): e.g. 200 mm.

Length (mm): Typically 3660 mm.

Joints: e.g. On-stud, Butt, Clip, PVC-U extrusion, Concealed, Aluminium.

Finish: e.g. Painted or Coated. Refer to 0671 *Painting* or 0672 *Textured and membrane coatings*.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 *Roofing* worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

Insulated panel system schedule

	A	B	C
Product			
Panel core			
Panel thickness (mm)			
Panel skin material: External			
Panel skin material: Internal			
Panel skin thickness (mm): External			
Panel skin thickness (mm): Internal			
Panel skin profile			
Panel finish and colour: External			
Panel finish and colour: Internal			
Control joint width (mm)			
Trim			
Fasteners			
Flashings and cappings			

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: Nominate a proprietary system or product and edit schedule to suit.

Panel core: e.g. Select from the following:

- Expanded polystyrene with fire retardant (EPS-FR).
- Polyisocyanurate (PIR).
- Mineral fibre (MRF).

See also BCA (2022) Spec 7 for related material on fire hazard properties of linings, materials and assemblies and NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

Panel thickness (mm): Consult manufacturer.

Panel skin material: External and internal: Select from:

- AM100 colour coated steel.
- Z275 colour coated steel.
- Stainless steel.
- Aluminium.

Panel skin profile: Consult manufacturer.

Panel finish and colour: External and internal: e.g. Select from Colorbond® range.

Control joint width (mm): Consult manufacturer.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Plastic sheet cladding schedule

	A	B	C
Product			
Material			
Thickness (mm)			
Length (mm)			
Width (mm)			
Class or grade			
Type			
Translucency			
Colour			
Impact resistance			
Ignitability			
Trim			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Material: Select either PVC-U, GRP, Polycarbonate.

Class or grade:

- PVC-U Type A or B.
- GRP: GP (general purpose), FR (fire retardant) or CR (chemical resistant).
- Polycarbonate, Grade S (sold flat sheet), P (profiled sheet) or M (multi-layered) as noted in the AS 4256 series.

Type as noted in AS 4256:

- GRP: CT (surface tissue present), ST/SX (surface treated).

- Polycarbonate: ST (surface treated), GP (general purpose).

Translucency: Transparent, Translucent, Opaque.

Colour: If applicable, use the manufacturer's name.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

Plywood sheet cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Veneer species			
Finish			
Coating			
Colour			
Joints			
Corners			
Fixing start location			
Trim			
Control joint width			
Flashings and cappings			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. waterproof direct fix, batten framing, ventilated cavity/rainscreen.

Thickness (mm): e.g. Minimum 7 mm, 8 mm, 12 mm, 15 mm, 17 mm, 19 mm.

Length (mm): e.g. 1800 mm, 2400 mm, 2700 mm.

Width (mm): e.g. 1200 mm.

Veneer species: e.g. Hoop Pine.

Finish: Rough sawn, Solid, Grooved, V-grooved, Profiled, Plain faced, Pre-surfaced, Overlaid, Film faced.

Coating: Two-pack polyurethane, Painted, Oil based exterior stain, Coated in water repellent. If painted, use 100% latex paint system and with a mouldicide in humid areas. If site painted, refer to 0671 Painting.

Joints: Flashed, Sealant-filled, Jointing moulds, Cover strips, Expressed joint with gasket.

Corners: Butt, Batten, Flashed.

Fixing start location: Note the elevation that will allow fixing to proceed from leeward to the windward of prevailing wind.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced, Crest or Valley.

STRAMIT profiled sheet metal cladding schedule

	A	B	C
Profile			
Fixing system			
Material type			
Base metal thickness (BMT) (mm)			

	A	B	C
Colour			
Trim			
Flashing and cappings			
Fasteners			

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.

Profile: Select from:

- Stramit Corrugated.
- Stramit K-Panel.
- Stramit Longspan.
- Stramit Monoclad.
- Stramit Mini Corry.
- Stramit Minirib.
- Stramit Monopanel.
- Stramit C-Clad 280.
- Stramit Premier 300.
- Stramit SharpLine.

Fixing system: e.g. direct fix, clip fix, top hat framing, ventilated cavity/rainscreen.

Material type: Select the product material recommended with reference to the atmospheric corrosivity category nominated for the project in 0171 General requirements. Refer also to NATSPEC TECHnote DES 010.

- Benign: COLORBOND steel, COLORBOND® Metallic steel or ZINCALUME®
- Moderate: COLORBOND®
- Marine: Colorbond® steel or Zincalume® steel or MagnaFlow®.
- Severe marine: MagnaFlow® steel, COLORBOND® Ultra steel.
- Very severe marine: MagnaFlow® steel, COLORBOND® Stainless steel.

This is a guide only. Contact STRAMIT technical services to determine the appropriate product for the project location.

Base Metal Thickness (BMT) (mm): Refer to STRAMIT product brochures. Select from the following:

- Generally: 0.42 or 0.48.

Colour: Select from the COLORBOND® and MagnaFlow® Colour Charts.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and capping types: List type of component or delete and refer to details. Prefinished steel to match cladding colour.

Fasteners: e.g. Concealed or Pierced: Crest or Valley to suit the profile.

Seamed sheet metal cladding schedule

	A	B	C
Product			
Fixing system			
Material			
Minimum thickness (mm)			
Seam spacing			
Colour			
Finish			
Trim			
Flashings and cappings			
Fasteners			

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: Seamed sheet metal or Flat lock tiles. Tiles and panels are an alternative to seamed sheeting.

Fixing system: e.g. waterproof direct fix, top hat framing, ventilated cavity/rainscreen.

Material: e.g. Soft temper copper to AS 1566 (1997) or Titanium zinc pre-weathered by pickling process.

Minimum thickness (mm):

- Copper: 0.7 mm.
- Zinc: 0.8 mm.

Width between seams:

- Copper: 500 mm.
- Zinc: 600 mm.

Finish: e.g. Polished, Sandblast, Varnish coated, Pre-weathered.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced: Crest or Valley.

Terracotta cladding schedule

	A	B	C
Product			
Fixing system			
Thickness (mm)			
Length (mm)			
Width (mm)			
Edge profile			
Finish			
Panel orientation layout			
Trim			
Joint width			
Flashings and cappings			
Suspension rails			
Fasteners			

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: Nominate a proprietary system or product and edit schedule to suit.

Fixing system: e.g. Rainscreen vented cavity.

Thickness (mm): e.g. 14 to 40 mm.

Length (mm): e.g. 600 to 3000 mm.

Width (mm): Panel height, e.g. 300 to 600 mm.

Edge profile: e.g. Smooth (square edge), Tongue and groove (T&G) or rebated.

Finish: Terracotta panels are factory finished and available in a number of different finishes, e.g. glazed, sandblasted, linear

Joint width (mm): Check proprietary system product details.

Panel orientation: Generally horizontal. Document unusual options.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns. Document requirements not covered by proprietary systems.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Suspension rails: e.g. Aluminium or galvanized steel proprietary system.

Fasteners: e.g. proprietary concealed. Coordinate with support schedule below.

Timber weatherboard cladding schedule

	A	B	C
Timber species			
Fixing system			

	A	B	C
Grade			
Profile			
Width (mm)			
Joints			
Finish			
Preservative			
Trim			
Flashings and cappings			
Fasteners			

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.

Timber species: When selecting hardwood, give preference to the naturally durable species.

Fixing system: e.g. waterproof direct fix, batten framing, ventilated cavity/rainscreen.

Grade:

- Hardwood: Select (SEL), Medium feature (MF) and High feature (HF).
- Seasoned cypress pine: Grade 1 or Grade 2.
- Softwood: Clear (CL), Appearance (AP), Select (SEL), Standard (STD) and Utility (UTL).

Profile: e.g. Weatherboard, Shiplap, Chamferboard.

Width (mm): e.g. 150 mm, 200 mm.

Joints: e.g. On-stud, Butt, Clip, PVC-U extrusion, Concealed, Aluminium.

Finish: e.g. Milled or Sawn.

Preservative: Select one compatible with the finish.

Trim: e.g. Proprietary accessories for sills, reveals or corner returns.

Flashings and cappings: e.g. Prefinished sheet metal to match cladding colour. Coordinate with 042 Roofing worksections.

Fasteners: e.g. Concealed or Pierced: Crest or Valley.

REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

AS 1231	2000	Aluminium and aluminium alloys - Anodic oxidation coatings
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 1562.3	2006	Plastic
AS/NZS 1734	1997	Aluminium and aluminium alloys - Flat sheet, coiled sheet and plate
AS 1810	1995	Timber - Seasoned cypress pine - Milled products
AS/NZS 1859		Reconstituted wood-based panels - Specifications
AS/NZS 1859.4	2018	Wet process fibreboard
AS/NZS 2269		Plywood - Structural
AS/NZS 2269.0	2012	Specifications
AS/NZS 2271	2004	Plywood and blockboard for exterior use
AS 2796		Timber - Hardwood - Sawn and milled products
AS 2796.1	1999	Product specification
AS 2796.2	2006	Grade description
AS/NZS 2904	1995	Damp-proof courses and flashings
AS/NZS 2908		Cellulose-cement products
AS/NZS 2908.2	2000	Flat sheets
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 4040.5	1996	Resistance to impact (sandbag) for wall boards
AS 4256		Plastic roof and wall cladding materials
AS 4256.3	2006	Glass fibre reinforced polyester (GRP)
AS 4256.4	2006	Unplasticized polyvinyl chloride (uPVC) wall cladding boards
AS 4256.5	2006	Polycarbonate
AS/NZS 4284	2008	Testing of building facades

AS 4785		Timber - Softwood - Sawn and milled products
AS 4785.1	2002	Product specification
AS 4785.2	2002	Grade description
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 5146		Reinforced autoclaved aerated concrete
AS 5146.1	2015	Structures
AS 5146.3	2018	Construction
AS 5637		Determination of fire hazard properties
AS 5637.1	2015	Wall and ceiling linings
SA TS 5344	2019	Permanent labelling for Aluminium Composite Panel (ACP) products
The following documents are mentioned only in the Guidance text:		
AS 1397	2021	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS 1566	1997	Copper and copper alloys - Rolled flat products
AS/NZS 2272	2006	Plywood - Marine
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/NZS 2728	2013	Prefinished/prepainted sheet metal products for interior/exterior building applications - Performance requirements
AS/NZS 2754		Adhesives for timber and timber products
AS/NZS 2754.1	2016	Adhesives for manufacture of plywood and laminated veneer lumber (LVL)
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
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 C2D15	2022	Fire resistance - Fire resistance and stability - Fixing of bonded laminated cladding panels
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
NCC Schedule 1	2022	Schedule 1 Definitions
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
BlueScope TB-02	2022	Overpainting and restoration of exterior BlueScope coated steel products
GBCA Buildings	2021	Green Star Buildings
NATSPEC DES 003		Fire hazard properties of insulation and pliable membranes
NATSPEC DES 010		Atmospheric corrosivity categories for ferrous products
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