# 0437P DELTA PANELS INSULATED CLADDING SYSTEMS

### **Branded worksection**

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#### Worksection abstract

This branded worksection *Template* is applicable to lightweight external cladding and facades using DELTA PANELS insulated cladding system. The system comprises prefinished composite panels with roll-formed steel skins factory-bonded to an insulating core.

#### 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 if 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.
- 0437 Cladding insulated panel systems.
- Related branded worksections include:
- 0428p DELTA PANELS insulated roofing systems.
- 0762p DELTA 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). DELTA Panels DeltaFireX (mineral wool core)
  products are suitable for use if non-combustible cladding is required.
- 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.
- For flush jointed fibre cement soffit lining import the relevant material from 0511 Lining.

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- 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.
- This worksection *Template* contains text that may be adapted for use in Design and Construct projects.

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.

### Specifying ESD

- The following may be specified by retaining default text:
- Energy efficient wall cladding.
- Durable and low maintenance wall cladding.
- Anti-bacterial finish that inhibits growth of bacteria.

Refer to NATSPEC TECHreport TR 01 on specifying ESD.

# 1 GENERAL

DELTA PANELS is a 100% Australian owned and operated manufacturer of insulated panels. Its range of products includes roof, wall and patio systems, plus a wide range of accessories. The range of panels, in various styles and colours, has been engineered for enhanced performance in Australia's harsh environment.

# 1.1 **RESPONSIBILITIES**

# General

Requirement: Provide DELTA PANELS insulated cladding system 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

# **DELTA PANELS technical contacts**

Website: www.deltapanels.com.au/contact.

# 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**

Cladding system product range: www.deltapanels.com.au/deltacool.

# 1.5 INTERPRETATION

# Abbreviations

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

- MW: Mineral wool.
- TPC: Thermosetting Phenolic Composite.
- PIR: Polyisocyanurate.
- EPS: Expanded polystyrene.

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

# 1.6 TOLERANCES

# **Permitted deviations**

Requirement: To DELTA PANELS' recommendations.

Structural steelwork for DELTA PANELS insulated cladding systems: ±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**, **Fire hazard properties**.

Fire-resistance level: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE**, **Fire-resistance of building elements**.

### **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.

DELTA PANELS can provide an engineer's report on request.

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

Requirement: Submit prototypes to EXECUTION, GENERAL, Prototypes.

Include this Optional style subclause by changing to Normal style text if the Optional EXECUTION, **GENERAL**, **Prototypes** subclause is included.

# Samples

# Requirement: Submit samples to PRODUCTS, GENERAL, Samples.

# 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 installers.

Evidence of experience: [complete/delete]

Contact DELTA PANELS for details of DELTA PANELS recommended installers appropriate to construction in your area.

# Warranties

Requirement: Submit warranties to COMPLETION, 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.

Edit 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.

### 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.

Requirement: Provide: 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

# 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 metal sheets or panels across each other or over other materials.
- Store off the ground.

# 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.

# 2.2 FIRE PERFORMANCE

See DELTA PANELS website for fire performance test reports.

# 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).

DeltaCool-EPS-FR tested to AS ISO 9705 (2003): Group number 1.

DeltaSecretFix-EPS-FR tested to AS ISO 9705 (2003): Group number 1.

DeltaCool-TPC tested to AS ISO 9705 (2003): Group number 1.

DeltaSecretFix-TPC tested to AS ISO 9705 (2003): Group number 1.

DeltaCool-PIR tested to AS ISO 9705 (2003): Group number 1.

DeltaSecretFix-PIR tested to AS ISO 9705 (2003): Group number 1.

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).

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:

See also BCA (2022) Table S7C7.

# - Spread-of-Flame Index: $\leq$ 9.

- DeltaCool-EPS-FR and DeltaSecretFix-EPS-FR: Spread-of-Flame Index: 0.
- DeltaCool-TPC and DeltaSecretFix-TPC: Spread-of-Flame Index: 0.
- DeltaCool-PIR and DeltaSecretFix-PIR: Spread-of-Flame Index: 0.
- DeltaCool-MW:Spread-of-Flame Index: 0.

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

• DeltaCool-EPS-FR and DeltaSecretFix-EPS-FR: Smoke Developed Index: 2.

• DeltaCool-TPC and DeltaSecretFix-TPC: Smoke Developed Index: 3.

• DeltaCool-PIR and DeltaSecretFix-PIR: Smoke Developed Index: 3

• DeltaCool-MW: Smoke Developed Index: 2.

# Fire-resistance of building elements

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

DeltaCool-MW panels tested to AS 1530.4 (2014). Refer to product specifications for fire-resistance level (FRL).

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

### **Fire-stops**

Requirement: If 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.

### Bushfire resistance

Bushfire Attack Level (BAL): Tested to AS 3959 (2018).

DeltaCool-EPS-FR wall system is BAL 29.

# 2.3 DELTA PANELS INSULATED CLADDING SYSTEMS

DELTA PANELS DeltaCool insulated panels comprise a roll-formed metal skin on two sides, factory bonded to a choice of core-Expanded Polystyrene Fire Retardant (EPS-FR), Thermosetting Phenolic Composite (TPC), Polyisocyanurate (PIR) or Mineral Wool (MW). All DeltaCool panels are 1200 mm wide and can be rolled to the required length.

### DeltaCool-EPS-FR

Description: An insulated wall panel system comprising panels of two pre-painted, roll form steel skins, bonded to an insulating core of fire retardant grade expanded polystyrene rigid cellular foam.

Joining system: Interlocking tongue and groove.

Strong, lightweight panels suitable for cold stores, commercial kitchens, food processing areas, portable buildings, home extensions, spray booths, wineries commercial buildings, residential buildings and growing rooms.

# DeltaCool-TPC

Description: An insulated wall panel system comprising panels of two pre-painted, roll form steel skins, bonded to an insulating core of thermosetting phenolic composite foam.

Joining system: Interlocking tongue and groove.

Strong, lightweight panels suitable for cold stores, commercial kitchens, food processing areas, portable buildings, home extensions, spray booths, wineries commercial buildings, residential buildings and growing rooms.

### DeltaSecretFix-EPS-FR

Description: An insulated wall panel system comprising panels of two pre-painted, roll form steel skins, bonded to an insulating core of fire retardant grade expanded polystyrene rigid cellular foam.

Joining system: Interlocking tongue and groove with concealed fixings.

Strong, lightweight panels suitable for architectural structures, curtain walling, clean rooms, feature walls, commercial buildings, residential buildings.

### DeltaCool-PIR

Description: An insulated wall panel system comprising panels of two pre-painted, roll form steel skins, bonded to an insulating core of polyisocyanurate rigid cellular foam.

Joining system: Interlocking tongue and groove.

With higher thermal efficiency than EPS-FR, PIR panels are suitable for cold stores, commercial kitchens, food processing areas, portable buildings, home extensions, spray booths, wineries commercial buildings, residential buildings and growing rooms.

# DeltaSecretFix-PIR

Description: An insulated wall panel system comprising panels of two pre-painted, roll form steel skins, bonded to an insulating core of polyisocyanurate rigid cellular foam.

Joining system: Interlocking tongue and groove with concealed fixings.

With higher thermal efficiency than EPS-FR, PIR panels are suitable architectural structures, curtain walling, clean rooms, feature walls, commercial buildings, residential buildings.

# DeltaCool-MW

Description: An insulated wall panel system comprising panels of two pre-painted, roll form steel skins, bonded to an insulating core of non-combustible mineral wool.

Joining system: Interlocking tongue and groove.

Mineral wool panels offer a high fire resistance coupled with high thermal performance and energy efficiency and are suitable if certified fire-resistance level is required, such as public access areas, sporting arenas, stadiums and halls, shopping complexes, data storage areas and clean rooms.

# Insulation core

Standard: To AS/NZS 4859.1 (2018).

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

Skin material and thickness: As documented.

The available skin thickness are 0.4 mm and 0.6 mm.

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

Panel profile: As documented.

# Dimensions

Panel thickness: As documented.

Panel width:

- Standard module width: 1200 mm.

# 2.4 COMPONENTS

# General

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.

### System accessories

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

DELTA insulated panel cladding systems has a range of aluminium extrusions including angles, channels and coving in a range of sizes and finishes,

# Flashings

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

Flashings: To AS/NZS 2904 (1995).

Coordinate with 042 Roofing worksections.

# Fasteners (non-cyclonic)

Requirement: To DELTA PANELS Handling and installation manual.

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

Cyclonic applications: Contact DELTA technical services for recommendations and testing documentation.

### Sealants

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

# 3 EXECUTION

# 3.1 GENERAL

### Prototypes

Requirement Provide: 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.

If a prototype is a project requirement, consider including this Optional style text by changing to Normal style text and completing the prompts.

# 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.

# **DELTA PANELS insulated cladding installation**

Standard: To AS 1562.1 (2018).

Requirement: Conform to DELTA PANELS' Handling and installation manual and standard construction drawings.

Detail control joints, flashing at windows and abutments, and penetrations. Consult DELTA for further information.

Installation: Install cladding as follows:

- 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.
- Allowing for thermal movement.

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

Fasteners, laps, seals, and fillers: Install as documented.

Fixing method: To DELTA PANELS' recommendations.

# 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.

# 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.

# Joints

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

# 3.2 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 oxidisation.

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 recommendations from DELTA PANELS for annual maintenance of the cladding system, including recommended methods of access, inspection, cleaning, repair and replacement.

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

# Warranties

General: Cover materials and workmanship in the terms of the warranty in the form of interlocking warranties from the supplier and the installer.

- Form: Against failure of materials and execution under normal environmental conditions and use.
- Warranty for workmanship: 2 years.
- Warranty for materials: 20 years.

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.

# 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 DELTA PANELS INSULATED PANEL CLADDING SYSTEM

### **DELTA** insulated panel schedule

	Α	В	С
DELTA panel type			
Panel core			
Panel thickness (mm)			
Panel skin thickness (mm): External			
Panel skin thickness (mm): Internal			
Panel skin profile			
Panel finish and colour: External			
Panel finish and colour: Internal			
Joiner			
R-Value (m².K/W)			
Acoustic characteristic			
Solar absorptance			
Light Reflectance Value (LRV)			
Trim			
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.

Contact DELTA to discuss your project requirements.

DELTA panel type: Select from the following:

- DeltaCool-EP-FR.
- DeltaSecretFix-EPS-FR.
- DeltaCool-TPC
- DeltaSecretFix-TPC

- DeltaCool-PIR.
- DeltaSecretFix-PIR.
- DeltaCool-MW.

Core: Select form the following:

- Expanded polystyrene.
- Polyisocyanurate.
- Thermosetting phenolic composite.
- Mineral wool.

Panel thickness: Select from 50 mm, 75 mm, 100 mm, 150 mm.

Panel skin thickness (mm): Select from 0.4 mm, 0.6 mm.

Panel skin profile: Select from the following:

- Smooth.
- Ribbed.
- 5V.
- SatinLine.
- Mesa.
- Single V.

Panel finish and colour: External:

• 0.4 mm: Off-white.

• 0.6 mm: Select from standard Colorbond® range.

Panel finish and colour: Internal:

- 0.4 mm: Off-white.
- 0.6 mm: Select from standard Colorbond® range.
- Joiner: Select from the following:
- Male-Female.
- Secret fix.
- Shadowline.

R-Value (m<sup>2</sup>.K/W): AS/NZS 4859.1 (2018) requires that R-Value is declared at 23°C for products sold in Australia.

- DeltaCool-EPS-FR: R-Values range from 1.40 to 4.10.
- DeltaSecretFix-EPS-FR: R-Values range from 1.40 to 4.10.
- DeltaCool-EPS-FR: R-Values range from 1.70 to 5.00.
- DeltaSecretFix-EPS-FR: R-Values range from 1.70 to 5.00.
- DeltaCool-PIR: R-Values range from 2.16 to 6.47.
- DeltaSecretFix-PIR: R-Values range from 2.16 to 6.47.
- DeltaCool-MW: R-Values range from 1.3 to 3.7.

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 authorities limit the light reflectance value for building exteriors. Refer to the relevant local authority for any requirements.

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

Fasteners: See DELTA PANELS Handling and installation manual.

# **Cladding support schedule**

	Α	В	С
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.

#### **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
AS 1530		Methods for fire tests on building materials, components and structures
AS 1530 1	1994	Compustibility 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 3959	2018	Construction of buildings in bushfire-prone areas
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 document	s are menti	ioned only in the Guidance text:
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 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 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