

## 0451P AWS ALUMINIUM WINDOWS AND DOORS

**Branded worksection**

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**Worksection abstract**

This branded worksection *Template* is applicable to commercial aluminium framed windows and glazed doors manufactured by AWS ARCHITECTURAL WINDOW SYSTEMS PTY LTD and residential aluminium framed windows and glazed doors manufactured by VANTAGE ALUMINIUM JOINERY; consisting of proprietary suites supplied as complete systems. It includes glazing, hardware, louvres, and screens as well as installation accessories such as fasteners, flashings, sealants and seals, caulking and weatherstripping, necessary for the satisfactory functioning of the whole system.

**How to use this worksection**

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

**Related material located elsewhere in NATSPEC**

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

Related material may be found in other worksections, including:

- *0421 Roofing - combined* for skylights and roof windows.
- *0432 Curtain walls*.
- *0456 Louvre windows*.
- *0457 External screens* for sliding shutters not integral with windows and glazed doors.
- *0461 Glazing* for glazing for curtain walls and glazing in framed openings.
- *0462 Structural silicone glazing* for adhesive fixed glazing.
- *0463 Glass blockwork*.
- *0524 Partitions - glazed* for glazed internal partitions.

**Material not provided by AWS**

This branded worksection does not include:

- Integral blinds.
- Frameless glazing.

**Documenting this and related work**

You may document this and related work as follows:

- Schedule windows, doors and hardware to your office documentation policy.
- In bushfire-prone areas, document bushfire protection requirements to AS 3959 (2018) and the NCC. If documenting bushfire shutters, see AS 3959 (2018) clause 3.7 and *0457 External screens*. See NATSPEC TECHnote DES 018 on bushfire protection.
- For protection of openable windows conforming to BCA (2022) D3D29 and BCA (2022) H5D3, document a device to restrict the window opening, a screen with secure fittings or a barrier to the window, as required.
- Operation of window sashes to satisfy maintenance requirements.
- See NATSPEC TECHnote PRO 006 for glass types used in buildings.
- For smoke and heat venting, see AS 2665 (2001), which is cited in the NCC.
- For information on the Window Energy Rating Scheme (WERS), see [www.agwa.com.au](http://www.agwa.com.au).
- For information on the Australian Glass and Window Association (AGWA) Accreditation Program, see [Accreditation Schemes \(agwa.com.au\)](http://www.agwa.com.au).

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:

- Maintenance requirements for performance of product design.

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

- Daylighting of buildings.
- Guarantees and warranties.
- Properties and rating systems for glazing, windows and skylights.
- Revisiting energy efficiency in commercial buildings.
- Site planning and design for bushfire.

#### Specifying ESD

The following may be specified by retaining default text:

- Louvre assemblies for natural ventilation.
- Insulating glass units (IGUs).
- Window seals to minimise air leakage when windows are shut.

The following may be specified by using included options:

- Thermal performance to reduce heating/cooling load by specifying the required Total system U-Value, Total system SHGC, frame material (e.g. metal has higher conductivity than timber).
- Operable shutter or window hardware for natural ventilation.
- Glass and frame selection with an acceptable visible transmittance for natural lighting.
- High performance glass, e.g. Low-E.

The following may be specified by including additional text:

- Aluminium products using lower carbon aluminium.
- Re-use of salvaged windows.
- Recycled material content, e.g. Aluminium frames.

Refer to NATSPEC TECHreport TR 01 on specifying ESD.

## 1 GENERAL

### AWS Architectural Window Systems Pty Ltd

Architectural Window Systems (AWS) is one of Australia's leading suppliers of aluminium window and door systems. AWS offers an extensive range of Australian designed aluminium window and door suites for residential and commercial applications. AWS designs, tests, finishes and supplies aluminium window and door systems under the Vantage and Elevate™ and ThermalHEART™ brands to more than 200 licenced manufacturers throughout Australia.

### 1.1 RESPONSIBILITIES

#### General

Requirement: Provide AWS aluminium windows and doors, as documented.

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

#### Maintenance

Design and document the window openings so that external faces of glazing can be cleaned from within the building and that the location, size, and types of openings are such that the cleaning requirement can be satisfied and conform to appropriate WHS requirements.

Product selection: Select windows with sashes capable of being opened to satisfy the documented maintenance requirements.

### 1.2 COMPANY CONTACTS

#### AWS Architectural Window Systems technical contacts

Website: [www.awsaustralia.com.au](http://www.awsaustralia.com.au).

### 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 STANDARDS

### General

Selection and installation: To AS 2047 (2014).

Building classification: [complete/delete]

To use AS 2047 (2014), the building class needs to be nominated as follows:

- Housing: NCC Class 1 and 10.
- Residential: NCC Class 2, 3 and 4.
- Commercial: NCC Class 5, 6, 7, 8 and 9.

### Glazing

Glass type and thickness: To AS 1288 (2021), if no glass type or thickness is nominated.

For glass type and minimum thickness, refer to AS 1288 (2021) Table 4.1.

Glass thickness may be governed by human safety and other requirements – see AS 1288 (2021) Sections 5, 6 and 7. Maximum spans for various thicknesses of glass types subject to wind loading are shown in the figures in AS 1288 (2021) Section 4.

Nominate a thickness if:

- The glass is to be thicker than required by AS 1288 (2021) or applicable regulations.
- There are unusual conditions requiring detailed calculations for which the designer should be responsible.

In other cases, the determination of thickness is usually within the competence of the glazing contractor.

If thickness is determined by loading from wind actions, the design wind pressure needs to be known in order to interpret the figures and tables of glass sizes and thicknesses in AS 1288 (2021).

See AS/NZS 1170.2 (2021) or AS 4055 (2021) as appropriate for design wind pressure.

Materials and installation: To AS 1288 (2021).

Quality requirements for cut-to-size and processed glass: To AS/NZS 4667 (2000).

The standard specifies requirements for the following:

- Cut sizes of flat, clear ordinary annealed and tinted heat-absorbing glass with glossy, apparently plane and smooth surfaces, which are used for general and architectural glazing or similar.
- Cut sizes of flat, clear ordinary annealed and tinted heat-absorbing processing glass used for Grade A safety requirements (i.e. toughened or laminated).
- Cut sizes of ordinary annealed, patterned and wired glass used in decorative and general glazing applications.
- Cut sizes of wired glass used for Grade B safety and general glazing applications.
- Processed laminated and toughened glass.

## 1.5 MANUFACTURER'S DOCUMENTS

### Technical manuals

Commercial: **Elevate Aluminium Systems** – [www.elevatealuminium.com.au](http://www.elevatealuminium.com.au).

Residential: **Vantage Design** – [www.vantagealuminium.com.au](http://www.vantagealuminium.com.au).

Specifiers' Guides and CAD drawings: [www.specifyaws.com.au](http://www.specifyaws.com.au).

## 1.6 INTERPRETATION

### Abbreviations

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

- AGWA: Australian Glass and Window Association.
- WERS: Window Energy Rating Scheme.

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

### Definitions

General: For the purposes of this worksection, the definitions given in AS/NZS 4668 (2000) and the following apply:

- Aluminium joinery: The collective term used for aluminium framed and glazed windows and doors.
- Hardware: To AS 4145.1 (2008) Section 2.

- Total system SHGC: Solar heat gain coefficient as defined by the NCC and tested in conformance with NFRC 200 (2023).
- Total system U-Value: Thermal transmittance as defined by the NCC and tested in conformance with NFRC 100 (2023).
- Weathering: Inclined upper external surface, such as of a coping, sill, or top of a buttress or chimney, designed to shed rainwater quickly and throw it clear of the facing material below.

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

## 1.7 SUBMISSIONS

### Certification

Windows and glazed doors: Submit evidence of conformity to AS 2047 (2014).

See AS 2047 (2014) clause 8.3.

Sealant compatibility: Submit statements from all parties to the installation certifying the compatibility of sealants and glazing systems to all substrates.

Opacified glass: Submit a report, from the manufacturer, certifying that the proposed method of opacifying the glass will not be detrimental to the glass or affect the glass product warranty.

Toughened glass: For each batch of glass, submit certification from the manufacturer of heat soaking.

Certification by the manufacturer is an alternative to marking heat soaked glass to EN 14179-1 (2016). Delete if marking is to be provided. If required, document glass for heat soaking in SELECTIONS.

### Fire performance

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

### Operation and maintenance manuals

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

### Products and materials

Safety glazing materials: Submit evidence of conformity to AS 2208 (2023).

Type tests: Submit test results of the following:

- Acoustic performance of windows and doors: To PRODUCTS, **GENERAL, Acoustic performance**.
- Protection of openable windows: To PRODUCTS, **GENERAL, Protection of openable windows**.

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 PRODUCTS.

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:

- Full size sections of members.
- Hardware, fittings and accessories including fixing details.
- Junctions and trim to adjoining surfaces.
- Layout (sectional plan and elevation) of the window assembly.
- Methods of assembly.
- Methods of installation, including fixing, caulking and flashing.

See BCA (2022) J5D5 and BCA (2022) H6D2(1)(b)(iii) for the sealing of windows and doors.

- Provision for vertical and horizontal expansion.
- Method of glazing, including the following:

- . Rebate depth.
- . Edge restraint.
- . Clearances and tolerances.
- . Glazing gaskets and sealant beads.

### Subcontractors

General: Submit names and contact details of proposed subcontractors endorsed by AWS Architectural Window Systems Pty Ltd.

Evidence of experience: [complete/delete]

Vantage Aluminium Joinery have a fabricator network for supply and installation. Delete if manufacturer/installer details are not required.

### Tests

Detail the tests required in EXECUTION and list the submissions required here.

Fall prevention tests: Submit test results to TESTING, Fall prevention tests.

If on-site fall prevention tests are documented, include this *Optional* style text by changing to *Normal* style text.

### Warranties

Requirement: Submit AWS warranty to COMPLETION, Warranties.

## 1.8 INSPECTION

### Notice

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

- Openings prepared to receive windows.
- Fabricated window assemblies at the factory ready for delivery to the site.
- Fabricated window assemblies delivered to the site, before installation.
- Commencement of window installation.

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

Hold points, if required, should be inserted here.

## 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

Requirement: Provide samples labelled with the series code reference and date of manufacture.

Window and door framing: Provide samples of the following:

- Prefinished production materials showing the limits of the range of variation in the documented colour.
- Joints made by proposed techniques.
- Sections for frames, sashes, louvres and slats.

Glazing: Provide samples of glazing materials, each at least 200 x 200 mm, showing the visual properties and range of variation, if any, for each of the following:

- Tinted or coloured glass or plastics glazing.
- Surface modified or surface coated glass.
- Patterned or obscured glass or plastics glazing.
- Ceramic-coated glass.
- Wired glass.
- Mirror glass.

Hardware and accessories: Provide samples of the following:

- Window manufacturer's standard hardware and accessories including locks, latches, handles, catches, sash operators, anchor brackets and attachments, masonry anchors and weatherseals (pile or extruded).
- Generic hardware: Provide samples of generic hardware not documented as proprietary items.

If required, add samples of generic hardware required.

### Storage and handling

Storage: Store in a clean, dry area unaffected by weather, to the manufacturer's recommendations. Protect from building materials and loose debris such as wet plaster, mortar, paint and welding splatter.

Handling: Handle frames to the manufacturer's recommendations and as follows:

- Stack upright, off the ground and against a flat, vertical surface.
- Carry in the vertical position with sashes locked.
- Do not rack frames out of square.
- Do not remove any bands and corner bracing until after installation.

### Acoustic performance

Windows and doors: Rating to the NCC cited AS/NZS ISO 717.1 (2004), as documented.

The NCC cites AS/NZS ISO 717.1 (2004). The current edition is AS ISO 717.1 (2024).

Document the required rating in the **Window and glazed door performance schedule**.

Double glazed systems: Interpolation between test results for similar systems is acceptable, provided dimensional (thickness or width) differences do not exceed a ratio of 1:1.5, and each tested system differs from the proposed system by not more than one variable of one of the following elements:

- Cavity: Width dimension.
- Cavity reveal: Acoustic absorption treatment.
- First panel: Glass type, glass thickness.
- Mounting: Type, seal type.
- Second panel: Glass type, glass thickness.

### Protection of openable windows

Fall prevention: To BCA (2022) D3D29.

See BCA (2022) H5D3 for Class 1 and 10 buildings.

### 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.

### Marking

Window assemblies: To AS 2047 (2014) Section 8.

Window assemblies for housing are required to be labelled to AS 2047 (2014) clause 8.2.

## 2.2 FIRE PERFORMANCE

### Fire-resistance of building elements

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

Fire-resistance level (FRL) applies only to specialist windows, usually supplied by passive fire protection product manufacturers. See NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

## 2.3 GLAZING

### Performance

Glass: Free from defects that detract from appearance or interfere with performance under normal conditions of use.

Plastics glazing: Free from surface abrasions and resistant to yellowing or other colour change. Capable of maintaining physical properties including strength and impact resistance for its design life.

### Heat soaking

Requirement: Heat soak glass to AS 1288 (2021) clause 3.8

Standard: To EN 14179-1 (2016).

Marking: To EN 14179-1 (2016) or certified by the manufacturer to AS 1288 (2021) clause 3.8.2.

Heat soaking is a process that reduces the risk of breakage during service from impurities such as nickel sulfide inclusions in the glass. The process puts the glass through a heat cycle to encourage the glass to break under test if it is at risk of inclusions.

AS 1288 (2021) clause 3.8.2 requires all monolithic toughened and heat-strengthened glass (with a surface compression greater than 52 MPa) to be heat soaked. It also includes exemptions.

Heat soaked thermally toughened soda lime silica glass is defined in EN 14179-1 (2016) and specifies the heat soak process, along with requirements for tolerances, flatness, edgework and fragmentation.

### Bullet-resistant glazing panels

Requirement: Proprietary bullet-resistant glazing panels

Manufacturer: [complete/delete]

Resistance level: [complete/delete]

Resistance to attack by various firearms was previously defined in AS/NZS 2343 (1997). This standard has now been withdrawn. Nominate the type of attack resistance required and confirm with the manufacturer.

- Class G0 – resistant to attack by a 9 mm military parabellum hand gun.
- Class G1 – resistant to attack by a 357 magnum hand gun.
- Class G2 – resistant to attack by a 44 magnum hand gun.
- Class R1 – resistant to attack by a 5.56 mm rifle.
- Class R2 – resistant to attack by a 7.62 mm rifle.
- Class S0 – resistant to attack by a 12 gauge shotgun (full choke) firing shot.
- Class S1 – resistant to attack by a 12 gauge shotgun (full choke) firing a single slug.

Panel materials: [complete/delete]

If particular materials are required, document here.

Panel opacity: [complete/delete]

Select from Transparent or Opaque. Delete if not required.

### Safety glazing materials

Standard: To AS 2208 (2023).

AS 2208 (2023) includes toughened, laminated and organic-coated glass. The required grade (A or B) is specified in AS 1288 (2021) Section 5 for each application.

See AS 2208 (2023) Section 2 for dimensional specifications and AS 2208 (2023) Table 2.3 for overall bow and warpage.

Roller wave distortion (not in the standard) is a consequence of heat treating glass and may be more noticeable in some applications. Consult the manufacturer for more information on tolerances.

Type: Grade A.

Marking: To AS 1288 (2021) clause 5.23.

Inconspicuous permanent labelling of tempered and reflective-coated glass for use in curtain walls is recommended, to identify inner and outer surfaces, strength grades, manufacturer, processor and standard.

### Heat-strengthened glass

Standard: To ASTM C1048 (2018).

Heat strengthening increases the strength of ordinary annealed glass. It is not a substitute for toughened glass and is not a safety glass.



**Ceramic-coated glass**

Requirement: Heat-strengthened or toughened glass with a coloured ceramic coating fused to and made an integral part of the surface to ASTM C1048 (2018), Condition B.

**Opacified glass**

Requirement: Glass with an opacifier permanently bonded to the inner face.

**Insulating glass units (IGUs)**

Requirement: Provide insulating glass units, as documented.

Document requirements in the **Insulating glass units (IGUs) schedule** or detail on drawings.

Manufacture, testing and installation: To AS 4666 (2012).

**2.4 GLAZING MATERIALS****General**

Requirement: Putty, glazing compounds, sealants, gaskets, glazing tapes, spacing strips, spacing tapes, spacers, setting blocks and compression wedges appropriate for the conditions of application and required performance.

**Compounds, sealants and tapes**

Glazing tapes: To AAMA 800 (2016) specifications 804.3, 806.3, or 807.3, as applicable.

If an AGWA Glass Compliance Certificate or Window Compliance Certificate is not nominated in SELECTIONS, change this *Optional* style text to *Normal* style text to describe the quality standards for glazing tapes, glazing compounds, narrow joint sealer, exterior perimeter sealing compound, non-drying sealant and expanded cellular glazing tape.

AAMA 800 (2016) glazing tape definitions:

- 804.3 - Designed for use in less severe back bedding and drop-in glazing applications such as residential and light commercial fenestrations.
- 806.3 - Designed for use in high performance commercial fenestrations in which the tape is subjected to continuous pressure exerted from gaskets or pressure generating stop designs.
- 807.3 - Designed for use in commercial fenestrations in which the tape is not subjected to continuous pressure from gaskets or pressure generating stop designs. This tape may be used in applications described for 804.3 tapes.

Glazing compounds: To AAMA 800 (2016) specifications 802.3 (Types I or II), or 805.2, as applicable.

AAMA 800 (2016) glazing compounds definitions:

- 802.3 (Type I and II): Ductile back bedding compound intended to remain ductile and to permit movement without loss of bond.
- 805.2 (Type A and C): Bonding type bedding compound that cure relatively hard and stiff and to permit limited movement without loss of bond.

Narrow joint seam sealer: To AAMA 800 (2016) specification 803.3.

AAMA 800 (2016) narrow joint seam sealer definitions:

- 803.3 (Type I): Non-sag narrow joint sealers that are elastic or ductile compounds with maximum slump of 2.5 mm.
- 803.3 (Type II): Self-levelling narrow joint sealers that are elastic or ductile compounds with maximum slump of 2.5 mm.

Exterior perimeter sealing compound: To AAMA 800 (2016) specification 808.3.

AAMA 800 (2016) exterior perimeter sealing compound definitions:

- 808.3: Perimeter sealing compound intended to remain elastic or ductile and to permit movement without loss of bond.

Non-drying sealant: To AAMA 800 (2016) specification 809.2.

AAMA 800 (2016) non-drying sealant definitions:

- 809.2: Non-drying sealant intended to remain pliable and tacky for use in sealing hidden joints.

Expanded cellular glazing tape: To AAMA 800 (2016) specification 810.1.

AAMA 800 (2016) expanded cellular glazing tape definitions:

- 810.1 (Type I): Tape intended as primary seal to prevent air and water leakage.
- 810.1 (Type II): Tape intended as secondary seal if tape used in combination with a full bead of wet sealant to prevent air and water leakage.



**Jointing materials**

Requirement: Jointing and pointing materials that are compatible with each other and the contact surfaces, and non-staining to finished surfaces to manufacturer's recommendations. Do not provide bituminous materials on absorbent surfaces.

**Elastomeric sealants**

Sealing compounds (polyurethane, polysulfide, acrylic): To ASTM C920 (2018) or ISO 11600 (2002).

Sealing compounds (silicone): To ASTM C920 (2018) or ISO 11600 (2002).

Sealing compounds (butyl): To ASTM C1311 (2022).

**Elastomeric sealants schedule**

| Sealant type | Material | Location or function |
|--------------|----------|----------------------|
|              |          |                      |
|              |          |                      |
|              |          |                      |

If the nature of the project requires a schedule of this nature, obtain the advice of the nominated fabricator or delete, as appropriate.

**Very high bond adhesive tape schedule**

| Tape type | Material | Location or function | Dimensions |
|-----------|----------|----------------------|------------|
|           |          |                      |            |
|           |          |                      |            |
|           |          |                      |            |

If the nature of the project requires a schedule of this nature, obtain the advice of the nominated fabricator, or delete as appropriate.

**Primer**

Compatibility: Apply the manufacturer's recommended primer to the surfaces in contact with sealant materials.

**Control joints**

Depth of elastomeric sealant: One half the joint width or 6 mm, whichever is the greater.

Foamed materials (in compressible fillers and backing rods): Closed cell or impregnated types that do not absorb water.

Bond breaking: Provide backing rods, and other back-up materials for sealants, that do not adhere to the sealant.

**2.5 SCREENS****General**

Requirement: Provide screens, as documented.

Document requirements in the **Screen schedule** or detail on drawings.

**Fixed screens**

General: Fixed screens fitted to the window frames with a clipping device that allows for removal for cleaning.

**Hinged screens**

General: Screens hinged at the top to give access to opening sash.

**Retractable screens**

General: Proprietary retractable screen, comprising aluminium frames and fibreglass mesh, fitted between the guide channels incorporated in the frames, and a retraction system including tension spring, bearings, positive self-locking device and elastomeric sealing strip at sill.

**Sliding screens**

General: Screens that are part of the window frame, with matching aluminium head guide, sill runner, and frame stile sections.

Hardware: Nylon slide runners and finger pull handle. Provide pile strip closers against sash if necessary to close gaps.

**Aluminium framed screens**

General: Aluminium extruded or folded box frame sections with mesh fixing channel, mitred, staked and screwed at corners. If necessary to adapt to window opening gear, provide an extended frame section.

Mesh: Bead the mesh into the frame channel with a continuous resilient gasket, so that the mesh is taut and free of distortion.

**2.6 SECURITY WINDOW SCREENS****General**

Requirement: Proprietary metal security screens, or operable screen and frames, fixed to the building structure with tamper resistant fastenings.

Standard: To AS 5039.1 (2023).

AS 5039.1 (2023) acknowledges that the security window screens described are not intruder-proof. See the Foreword to this standard. The dynamic impact, jemmy, pull, probe shear and knife shear tests scheduled for conformance in AS 5039.1 (2023) Table 4.1 are described in AS 5039.3 (2023).

Document requirements in the **Security window screen schedule** or detail on drawings.

**2.7 ALUMINIUM FRAME FINISHES**

Delete finish not required.

**Powder coatings**

Standard: To AS 3715 (2002).

Product: [complete/delete]

Select Dulux Duralloy or AkzoNobel Interpon D 610. Both are available as standard for the Vantage Aluminium Joinery series.

- Dulux Duratec is available upon request: Select for high rise if cleaning may be infrequent or if longer warranties are required.
- Dulux Fluoraset is available upon request: Select for installations in a salt environment or if longer warranties are required.

Edit as appropriate. Note high performance powders can require extended lead times.

Powder coat thickness: 50 to 90 µm.

**Anodised**

Standard: To AS 1231 (2000).

Thickness:

- Internal: 15 µm.
- External: 20 µm.

25 µm thick anodising, recommended for severe conditions, can be made available by some suppliers upon request.

**2.8 ANCILLARY COMPONENTS AND FITTINGS****Trim**

General: Provide trim, shadow angles and architraves, as documented.

Document requirements in the **Trim schedule** or detail on drawings.

**Extruded gaskets and seals**

General: Provide seals, as documented.

Document requirements in the **Window and glazed door seal schedule** or detail on drawings.

Materials: Non-cellular (solid) elastomeric seals as follows:

- Rubber products: Neoprene, ethylene propylene diene monomer (EPDM) or silicone rubber.

BS 4255-1 (1986) provides more specific product requirements for weather resistant rubber gaskets and seals.

- Flexible polyvinyl chloride (PVC): E type compounds, colourfastness grade B.

BS 2571 (1990) provides more specific requirements for PVC E type (extruded) products.

**Flashings**

General: Corrosion-resistant, compatible with the other materials in the installation, and coated with a non-staining compound if necessary.

Standard: To AS/NZS 2904 (1995).

**Nylon brush seals**

General: Dense nylon bristles locked into holding strips and fixed in a groove in the edge of the door or in purpose-made anodised aluminium holders fixed to the door or frame to the manufacturer's recommendations.

**Pile weatherstrips**

General: Provide weatherstrips, as documented.

Document in the **Pile weatherstrips schedule** or detail on drawings.

Standard: To AAMA 701/702 (2023).

AAMA 701/702 (2023) is a guide to selecting pile weatherstrip and weatherseals used in windows and doors. It defines requirements to restrict air and water infiltration. See BCA (2022) J5D5 and BCA (2022) H6D2(1)(b)(iii) for the sealing of windows and doors.

AS 3959 (2018) has requirements for door and window seals in bushfire zones. Testing of seals to AS 1530.2 (1993) is required in some BAL zones.

Material: Pile and backing or equivalent polypropylene, low friction silicone treated, ultraviolet stabilised, fixed to the frame to the manufacturer's recommendations.

Finned type: A pile weatherseal with a central polypropylene fin bonded into the centre of the backing rod and raised above the pile level.

**Weather bars**

General: A weather bar for hinged external doors, located under the centres of closed doors.

Document in the **Weather bars schedule**, or detail on drawings. Weather bars and threshold plates are used at the junction between sill and door leaf or in place of a sill. Weather bars have been traditionally associated with purpose-made joinery. If sill profiles or proprietary profiles do not allow for the inclusion of a weather bar; document a proprietary seal or threshold section. As a secondary role the weather bar can serve to protect the sill rebate from damage in high traffic areas.

If used as a single item without a sill and acting as a floor finish divider, document under the appropriate worksection (e.g. 0526 Terrazzo precast, 0612 Cementitious toppings, 0613 Terrazzo in situ or 0631 Ceramic tiling). The profile, material and method of fixing to the building fabric require clearance from the edges of the building fabric e.g. concrete slabs. For embedded weather bars, document corrosion-resistant materials. The NCC covers thresholds in BCA (2022) D3D16.

**Threshold drain**

General: If the frame includes a threshold member, provide a self-draining section with anti-slip surface, as documented.

Document requirements in the **Threshold drain schedule** or detail on drawings.

**2.9 HARDWARE****Hardware documented generically**

General: Provide hardware of sufficient strength and quality to perform its function, appropriate to the intended conditions of use, compatible with associated hardware, and fabricated with fixed parts firmly joined.

General provisions of this kind would apply mainly as default requirements for items documented only in generic terms without particular prescriptive or performance requirements. Provision is made in SELECTIONS to document proprietary items with inherent quality or performance characteristics matching your requirements.

**Window locks and latches**

Standard: To AS 4145.2 (2008).

Document the required performance in the **Window locks and latches performance schedule**.

Window catches: Provide 2 catches per sash to manually latched awning or hopper sashes over 1000 mm wide.

**Sash balances**

Requirement: Match the spring strength of the balances to the sash weight they support.

**Sash operators**

Requirement: Provide sash operators, as documented.

Document requirements in the **Window hardware schedule** or detail on drawings.

**2.10 KEYING****Contractor's keys**

Master key systems: Do not use any key under a master key system.

As construction cylinders are replaced at practical completion, they may be used for many projects and therefore are often at no extra cost. A construction or project key relies on a mechanism within the cylinder to be released to convert it from being activated by the project key to its final use key. This facility is at extra cost and reduces the system's keying capacity.

#### Identification

Labelling: Supply each key with a purpose-made plastic or stamped metal label legibly marked to identify the key, attached to the key by a metal ring.

#### Key material

Pin tumbler locks: Nickel alloy, not brass.

Lever locks: Malleable cast iron or mild steel.

#### Keying system

Requirement: Keying system, as documented.

Document in the **Key codes schedule**.

Coding of locks: If window locks are included in building key code groups, provide cylinder or pin tumbler locks coded to match.

#### Number of keys table

| Code | Key type                         | Minimum number of keys              |
|------|----------------------------------|-------------------------------------|
| KD   | Locks keyed to differ            | 2 for each lock                     |
| KA#  | Locks keyed alike:               |                                     |
|      | -2 locks in code group           | 4                                   |
|      | -3 to 10 locks in code group     | 6                                   |
|      | -11 to 40 locks in code group    | 10                                  |
|      | -41 and over locks in code group | 1 for every 4 locks or part thereof |

KA#: Refer to the code groups, e.g. KA1, KA2 in the **Key codes schedule**.

The Australian standard for a rating system for locksets in doors and windows, AS 4145.1 (2008), provides for ten levels of keying security, K1 to K10.

Group and master keying requirements need to be coordinated with *0455 Door hardware* by reference or by replacing this **KEYING** clause with the **KEYING** clause in *0455 Door hardware*, which includes the master keying schedules.

### 3 EXECUTION

#### 3.1 GENERAL

##### Prototypes

Use only for large projects if appropriate. Several prototypes may be required if there are different window systems.

Show the prototype location and extent on the drawings.

Sample installations: Install the designated typical aluminium joinery assemblies in their final position incorporating at least one example of each component in the system, including attachments to the structure, flashing, caulking, sealing, glazing, operating hardware, locks and keys.

Required prototypes: [complete/delete]

Nominate a designated window assembly by description or by reference to drawings of an area marked on an elevation.

Samples in prototypes: Install required samples in prototypes.

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

#### 3.2 GLAZING PROCESSING

##### General

Processing: Perform required processes on glazing, including cutting, obscuring, silvering and bending. Form necessary holes, including for fixings, equipment, access openings and speaking holes. Process exposed glass edges to a finish not inferior to ground arised.

Glass processing includes edgework, holes and cut-outs. Do not cut, work, or permanently mark glass after toughening or heat strengthening. See AS/NZS 4668 (2000) Appendix B for different edge finish requirements and AGWA

*A guide to window and door selection (2020) for specific applications. The degree of edgework documented has implications for glass cutting and tolerances.*

### 3.3 INSTALLATION

#### General

Requirement: Install windows and glazed doors as follows:

- Plumb, level, straight and true within building tolerances.
- Fixed or anchored to the building structure in conformance with the wind action loading requirements.
- Isolated from any building loads, including loads caused by structural deflection or shortening.
- Allow for thermal movement.

#### Glazing

*If the glazing system or method is not covered by the installation provisions of AS 1288 (2021), (e.g. patent glazing, structural adhesive glazing or installation of IGUs), edit to suit the recommendations of the system and materials manufacturer.*

Requirement: Install the glass as follows:

- Permanently fix in place each piece of glass to withstand the normal loadings and ambient conditions at its location without distortion or damage to glazing materials.
- No transfer of building movements to the glazing.
- Watertight and airtight for external glazing.

*Document particular installation methods and detailed performance testing requirements for water and airtightness.*

Temporary marking: Use a method that does not damage the glazing. Remove marking only after certification and acceptance of the installation.

Toughened glass: Do not cut, drill, edgework or permanently mark after toughening. Use installation methods that prevent the glass making direct contact with metals or other non-resilient materials.

Frameless installations: Join the vertical edges of adjacent glass panels with silicone jointing compound.

Heat-absorbing glass: In locations exposed to direct sunlight, provide wheel cut edges free from damage or blemishes, with minimum feather.

#### Preglazing

Window assemblies and glazed doors: Supply inclusive of glazing, shop preglazed.

#### Weatherproofing

Flashing and weatherings: Install flashings, weather bars, threshold plates, drips, storm moulds, joint sealant and pointing to prevent water penetrating the building between the window frame and the building structure under the prevailing service conditions, including normal structural movement of the building.

#### Fixing

Packing: Pack behind fixing points with durable full width packing.

Fasteners: Conceal fasteners.

Fasteners and fastener spacing: Conform to AWS Architectural Window Systems manuals available at their relevant website:

- Commercial: **Elevate Aluminium Systems**.
- Residential: **Vantage Design**.

#### Joints

General: Make accurately fitted tight joints so that fasteners or fixing devices such as pins, screws, adhesives and pressure indentations are not visible on exposed surfaces.

Sealants:

- If priming is recommended, prime surfaces in contact with jointing materials.
- If frames are powder coated, apply a neutral cure sealant.

#### Operation

General: Make sure moving parts operate freely and smoothly, without binding or sticking, at correct tensions or operating forces and are lubricated.

**Protection**

Removal: Remove temporary protection measures from the following:

- Contact mating surfaces before joining up.
- Exposed surfaces before completion of the works.

Temporary measures: [complete/delete]

State a particular method here, or delete to leave the choice of method to the contractor. For on-site care, see AS 2047 (2014) Appendix E (Informative).

**Trim**

General: Provide mouldings, architraves, reveal linings, and other internal trim using materials and finishes matching the window frames. Install to make neat and clean junctions between frames and the adjoining building surfaces.

Show on the drawings. Coordinate with 0511 Lining and 0453 Doors and access panels; do not schedule the same items twice.

**3.4 SECURITY WINDOW SCREENS****General**

Installation: To AS 5039.2 (2024).

**3.5 HARDWARE****Fasteners**

Materials: Use materials compatible with the item being fixed and of sufficient strength, size and quality to perform their function.

- Concealed fasteners: Provide a corrosion-resistant finish.
- Exposed fasteners: Match exposed fasteners to the material being fixed.

Support: Provide appropriate back support (for example lock stiles, blocking, wall noggings and backing plates) for hardware fasteners.

- Hollow metal sections: Provide backing plates drilled and tapped for screw fixing, or provide rivet nuts with machine thread screws. Do not use self-tapping screws or pop rivets.

For corrosion resistance guidance, refer to 0171 General requirements and 0181 Adhesives, sealants and fasteners.

**Proprietary window systems**

Requirement: Provide the standard hardware and internal fixing points for personnel safety harness attachment, if required by and conforming to the governing regulations.

**Operation**

General: Make sure working parts are accurately fitted to smooth close bearings, without binding or sticking, free from rattle or excessive play, lubricated if appropriate.

**Supply**

Delivery: Deliver window hardware items, ready for installation, in individual complete sets for each window set, as follows:

- Clearly labelled with the intended location.
- In a separate dust and moisture proof package.
- Including the necessary templates, fixings and fixing instructions.

**TESTING**

0171 General requirements defines different tests in **INTERPRETATION**, **Definitions** and calls for an inspection and testing plan in **TESTING - GENERALLY, Inspection and testing plan**.

**Fall prevention tests**

Fall prevention tests of completed installation: To AS 5203 (2016).

Windows supplied as complete sets with security screens and tested to AS 5039.3 (2023) are not required to be tested to AS 5203 (2016).

If on-site fall prevention tests are required in addition to type tests, consider including this *Optional* style text by changing to *Normal* style text. Site testing is expensive.

### 3.6 COMPLETION

#### Hardware

Adjustment: Leave the hardware with working parts in working order, and clean, undamaged, properly adjusted, and lubricated if appropriate.

#### Keys

Contractor's keys: Immediately before the date for practical completion, replace cylinders to which the contractor has had key access during construction with new cylinders that exclude the contractor's keys.

Replacement of contractor's keys may be waived only if written approval is given to an alternative method of rendering the contractor's keys inoperative.

Keys: For locks keyed to differ and locks keyed alike, verify quantities against key records, and deliver to the contract administrator at practical completion.

Key codes: Submit the lock manufacturer's record of the key coding system showing each lock type, number and type of key supplied, key number for re-ordering, and name of supplier.

#### Repair of finish

Polyester or fluoropolymer coatings: Contact supplier for approval to apply touch up products, otherwise replace damaged material.

#### Cleaning

Method: Clean with soft clean cloths and clean water, finishing with a clean squeegee. Do not use abrasive, acidic or alkaline materials.

Extent: All frames and glass surfaces internally and externally.

#### Operation and maintenance manuals

Requirement: Prepare a manual that includes the manufacturer's published recommendations for operation, care and maintenance.

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

Aluminium joinery excluding hardware:

- Form: Against failure of materials and execution under normal environment and use conditions.
- Period: 6 years, conditional on compliance with the AGWA Code of Conduct.

Powder coating:

- Dulux Duralloy:
  - . Film integrity: 10 years.
  - . Colour integrity: 10 years.
- Dulux Duratec:
  - . Film integrity: 20 years.
  - . Colour integrity: 15 years.
- Dulux Electro:
  - . Film integrity: 20 years.
  - . Colour integrity: 15 years.
- AkzoNobel Interpon D 1000:
  - . Film integrity: 7 years.
  - . Colour integrity: 10 years.
- AkzoNobel Interpon D 2015:
  - . Film integrity: 20 years.
  - . Colour integrity: 15 years.

Any colours not recommended by Vantage will be supplied on the understanding that no surface finish warranty is given.

Hardware supplied by Vantage: [complete/delete]

Consult Vantage Aluminium Joinery. The terms and period are influenced by exposure to corrosive elements.

Hardware supplied separately: [complete/delete]



Consult the supplier.

## 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 COMMERCIAL WINDOWS AND DOORS – ELEVATE ALUMINIUM SYSTEMS

Duplicate and customise these **Schedules**, adding and deleting rows and columns, as required.

#### Guide for AWS Selection Schedules

Type: e.g. A, B, designation code for location to your office documentation policy.

Description: Delete as appropriate.

Series: Select alternatives as appropriate by reference to the *Elevate Aluminium Systems Specifiers' Guide*.

Glazing: Select the generic term from the **GLAZING** Schedules.

Hardware: Select proprietary or nominate hardware to be supplied by others.

The AWS Commercial range of windows have been designed to take the sashes from residential products and fit them professionally into CentreGLAZE™ shopfront framing with a number or custom designed extrusions. Suitable for all applications including residential.

#### Commercial window and sliding door schedule

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | Commercial Door - Single glazed<br>50 mm thick<br>Hinged/Sliding                       | 50     |         |          |
|      | Commercial Door – Double glazed<br>50 mm thick<br>Hinged/Sliding                       | 52     |         |          |
|      | Commercial Sliding Window – 100 mm<br>Commercial framing utilising Domestic sashes     | 452    |         |          |
|      | Commercial Double-Hung Window – 100 mm<br>Commercial framing utilising Domestic sashes | 453    |         |          |
|      | Commercial Awning Window – 100 mm<br>Commercial framing utilising Domestic sashes      | 456    |         |          |
|      | Apartment Sliding Window – 100 mm<br>Purpose designed high performance window          | 461    |         |          |
|      | Apartment Sliding Door – 100 mm<br>Purpose designed high performance                   | 471    |         |          |

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | door   |        |         |          |
|      | Unique Commercial stacking sliding door – 100 mm Framing in situ screening ability | 442    |         |          |
|      | Unique Commercial stacking sliding door – 150 mm Framing in situ screening ability | 642    |         |          |

**Commercial/Architectural window and sliding door schedule**

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | LouvreMASTER™ – Dedicated elliptical bladed operable shade louvre  | 417    |         |          |
|      | FoldMASTER™ Bi-fold Door (bottom hung) – Exceptionally strong bottom rolling bi-fold system                  | 410    |         |          |
|      | ViewMASTER™ Bi-fold Door (top hung) – Exceptionally strong top hung bi-fold system                           | 411    |         |          |
|      | FoldMASTER™ Bi-fold Door (bottom hung) – Exceptionally strong bottom rolling bi-fold system hidden rollers   | 412    |         |          |
|      | Architectural Sliding Window – High performance dedicated sliding window utilising commercial sashes         | 462    |         |          |
|      | Architectural Double-Hung Window - High performance dedicated double hung window utilising commercial sashes | 463    |         |          |

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | ClearVENT™ Sashless Double-Hung – High performance sashless double hung system 2 panel operation only  | 464    |         |          |
|      | Architectural Awning Casement Window – High performance dedicated awning/casement window utilising commercial sashes   | 466    |         |          |
|      | Architectural Awning Casement Window – High performance dedicated awning/casement window utilising commercial sashes and Truth™ operating hardware   | 467    |         |          |
|      | Architectural Awning Casement Window – High performance dedicated awning/casement window utilising commercial sashes and Truth™ operating hardware. Designed to complement front glazed suites | 468    |         |          |
|      | Architectural hinged door (150 mm) – Entry door hinged door framing system designed to accept heavy duty 50 mm thick commercial hinged doors with rebate option for integral screen            | 650    |         |          |
|      | Architectural Sliding Window – High performance 150 mm dedicated sliding window utilising commercial   | 662    |         |          |

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | sashes   |        |         |          |
|      | Architectural<br>Awning Casement<br>Window – High<br>performance<br>150 mm dedicated<br>awning/casement<br>window utilising<br>commercial sashes   | 665    |         |          |
|      | High Performance<br>SlideMASTER™<br>Sliding Door –<br>Extra strong multi-<br>stacking sliding<br>doors specifically<br>designed for high<br>wind and water<br>loads  | 702    |         |          |
|      | High Performance<br>SlideMASTER™<br>Sliding Door –<br>Extra strong multi-<br>stacking sliding<br>doors specifically<br>designed for high<br>wind and water<br>loads and the<br>ability for a flush<br>transition threshold | 704    |         |          |
|      | High Performance<br>SlideMASTER™<br>Sliding Door.<br>Series 704 R is a<br>top hung with a<br>bottom rail that is<br>completely<br>recessed into the<br>sill  | 704 R  |         |          |
|      | High Performance<br>SlideMASTER™<br>Sliding Door.<br>Series 704 T is a<br>top hung with a sill<br>that complies with<br>AS 1428 Design for<br>access and<br>mobility.  | 704 T  |         |          |
|      | High Performance<br>SlideMASTER™<br>Sliding Door.<br>Series 704 B is a<br>bottom rolling<br>sliding door with<br>minimal sill<br>recesses.   | 704 B  |         |          |
|      | High Performance<br>SlideMASTER™   | 704 LS |         |          |

| Type | Description   | Series  | Glazing | Hardware |
|------|---|---------|---------|----------|
|      | Sliding Door.<br>Series 704 LS is a bottom rolling sliding door with a Lift and Slide Operation                                 |         |         |          |
|      | High Performance SlideMASTER™ Sliding Door.<br>Series 704 FTH is a top hung with fully flush and concealed rails and stiles     | 704 FTH |         |          |
|      | High Performance SlideMASTER™ Sliding Door.<br>Series 704 FBR is bottom rolling with fully flush and concealed rails and stiles | 704 FBR |         |          |

**Commercial/Shopfront framing schedule**

| Type | Description   | Series | Glazing | Hardware |
|------|---|--------|---------|----------|
|      | CentreGLAZE™ Single Glazed (102 mm) Framing – Fixed framing compatible with all commercial and architectural series systems | 400    |         |          |
|      | CentreGLAZE™ Wide (150 mm) Framing – Fixed framing compatible with all commercial and architectural series systems          | 600    |         |          |
|      | CentreGLAZE™ Double Glazed (102 mm) Framing – Fixed framing compatible with all commercial and architectural series systems | 424    |         |          |
|      | CentreGLAZE™ Double Glazed (150 mm) Framing – Fixed framing compatible with all commercial and architectural series systems | 624    |         |          |

| Type | Description   | Series | Glazing | Hardware |
|------|---|--------|---------|----------|
|      | FrontGLAZE™<br>Single Glazed<br>(102 x 50 mm)<br>Framing – Fixed<br>framing compatible<br>with all commercial<br>and architectural<br>series systems        | 406    |         |          |
|      | FrontGLAZE™<br>Single Glazed<br>(150 x 50 mm)<br>Framing – Fixed<br>framing compatible<br>with all commercial<br>and architectural<br>series systems        | 606    |         |          |
|      | FrontGLAZE™<br>Double Glazed<br>(102 x 60 mm)<br>Framing – Fixed<br>framing compatible<br>with all commercial<br>and architectural<br>series systems        | 426    |         |          |
|      | CentreGLAZE™<br>Double Glazed<br>(102 mm) Framing<br>– Designed to<br>accept thick,<br>double and triple<br>glazing   | 450    |         |          |
|      | FrontGLAZE™<br>Double Glazed<br>(150 x 60 mm)<br>Framing – Fixed<br>framing compatible<br>with all commercial<br>and architectural<br>series systems        | 626    |         |          |
|      | Narrow Offset<br>Framing (80 mm) –<br>Fixed framing<br>compatible with<br>most commercial<br>and architectural<br>series systems                            | 80     |         |          |
|      | Series 105 Partition<br>framing system has<br>been designed to<br>be single or double<br>glazed. Slim, wide<br>or shadow line<br>perimeter frame<br>options | 105    |         |          |
|      | Wide Offset<br>Framing (150 mm)<br>– Fixed framing  | 600    |         |          |

| Type | Description   | Series | Glazing | Hardware |
|------|---|--------|---------|----------|
|      | compatible with all commercial and architectural series systems   |        |         |          |
|      | SoundOUT™ Double Glazed Framing – Fixed framing compatible with all commercial and architectural series systems               | 646    |         |          |
|      | CentreGLAZE™ Double Glazed (150 mm) Framing – Designed to accept thick, double and triple glazing                             | 660    |         |          |
|      | FrontGLAZE™ Double Glaze (225 mm) framing – Very high performance commercial suite suited to extremely large spans of glazing | 936    |         |          |

**Thermally broken commercial window and door schedule**

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | Thermally broken CentreGLAZE™ (100 mm) – Fixed framing compatible with all commercial and architectural thermally broken systems | 804    |         |          |
|      | Thermally broken CentreGLAZE™ (150 mm) – Fixed framing compatible with all commercial and architectural thermally broken systems | 806    |         |          |
|      | Thermally broken FrontGLAZE™ (100 mm) – Fixed framing compatible with all commercial and architectural thermally broken systems  | 824    |         |          |
|      | Thermally broken FrontGLAZE™   | 826    |         |          |



| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | (150 mm) – Fixed framing compatible with all commercial and architectural thermally broken systems                               |        |         |          |
|      | Thermally broken commercial door – Hinged/Sliding Door compatible with all commercial and architectural thermally broken systems | 852    |         |          |

## 4.2 CURTAIN WALL SYSTEMS

### Guide for AWS Selection Schedules

Type: e.g. A, B, designation code for location to your office documentation policy.

Description: Delete as appropriate.

Series: Select alternatives as appropriate by reference to the *Vantage Design Specifiers' Guide*.

Glazing: Select the generic term from the **GLAZING** Schedules.

Hardware: Select proprietary or nominate hardware to be supplied by others.

The AWS Commercial range of windows have been designed to take the sashes from residential products and fit them professionally into CentreGLAZE™ shopfront framing with a number or custom designed extrusions. Suitable for all applications including residential.

### Curtain wall schedule

| Type | Description  | Series                   | Glazing | Hardware |
|------|--|--------------------------|---------|----------|
|      | Curtain wall can be fabricated as a full aluminium system with thermal shielding or thermally broken mullions and transoms to achieve excellent energy efficiency and thermal performance values | 168 – Thermally broken   |         |          |
|      | Curtain wall can be fabricated as a full aluminium system with thermal shielding or thermally broken mullions and transoms to achieve excellent energy efficiency and thermal performance values | 168 – Thermally shielded |         |          |

### 4.3 RESIDENTIAL WINDOWS AND DOORS – VANTAGE PRODUCTS

#### Guide for AWS Selection Schedules

Type: e.g. A, B, designation code for location to your office documentation policy.

Description: Delete as appropriate.

Series: Select alternatives as appropriate by reference to the *Vantage Design Specifiers' Guide*.

Glazing: Select the generic term from the **GLAZING** Schedules.

Hardware: Select proprietary or nominate hardware to be supplied by others.

The AWS Commercial range of windows have been designed to take the sashes from residential products and fit them professionally into CentreGLAZE™ shopfront framing with a number or custom designed extrusions. Suitable for all applications including residential.

#### Residential sliding window schedule

| Type | Description  | Series  | Glazing | Hardware |
|------|--|---------|---------|----------|
|      | Residential Sliding Window – Double Sash Design (50 mm frame)  | 502-504 |         |          |
|      | Residential Double Hung Window (50 mm frame)   | 514     |         |          |
|      | Residential Awning Window (50 mm frame)  | 516     |         |          |
|      | Residential Awning Window (102 mm frame)   | 517     |         |          |
|      | Residential Sliding Door   | 541     |         |          |
|      | DStacker™ Sliding Door   | 542     |         |          |
|      | Entry Door   | 549     |         |          |
|      | Residential Sliding Window (75 mm frame) offering concealed sashes and excellent weather and thermal performance with contemporary styling | 752     |         |          |
|      | Residential Awning Window (75 mm frame) offering concealed sashes and excellent weather and thermal performance with contemporary styling  | 756     |         |          |

#### Residential/Designer window and door schedule

| Type | Description   | Series | Glazing | Hardware |
|------|---------------|--------|---------|----------|
|      | LouvreMASTER™ | 525    |         |          |

| Type | Description   | Series | Glazing | Hardware |
|------|---|--------|---------|----------|
|      | Adjustable Window   |        |         |          |
|      | Bi-fold Window  | 546    |         |          |
|      | High Performance Bi-fold Door   | 548    |         |          |
|      | High Performance Hinged Door  |        |         |          |
|      | MAGNUM™ Sliding Window – Beaded Fixed Light (100 mm frame)                          | 601    |         |          |
|      | MAGNUM™ Sliding Window – Double Sash Design (100 mm frame)                          | 602    |         |          |
|      | MAGNUM™ Double Hung Window  | 613    |         |          |
|      | ClearVENT™ Sashless Double Hung Window (100 mm frame)                               | 614    |         |          |
|      | MAGNUM™ Awning & Casement Window (100 mm frame)                                     | 616    |         |          |
|      | MAGNUM™ Awning & Casement Window (100 mm frame) utilising Truth™ operating hardware | 616 TR |         |          |
|      | MAGNUM™ Sliding Door – Award Winning Multi And Cavity Stacking Sliding Door         | 618    |         |          |

**Residential Thermally Broken window and door schedule**

| Type | Description   | Series | Glazing | Hardware |
|------|---|--------|---------|----------|
|      | ThermalHEART™ Awning Window – 100 mm incorporating ThermalHEART™ technology giving a true wide thermal break between the outside and inside faces | 726    |         |          |
|      | ThermalHEART™ Hinged Door – 100 mm incorporating  | 729    |         |          |

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | ThermalHEART™ technology giving a true wide thermal break between the outside and inside faces   |        |         |          |
|      | ThermalHEART™ Bi-fold Door – 100 mm incorporating ThermalHEART™ technology giving a true wide thermal break between the outside and inside faces | 730    |         |          |
|      | ThermalHEART™ Sliding Door – 100 mm incorporating ThermalHEART™ technology giving a true wide thermal break between the outside and inside faces | 731    |         |          |

**Residential ComfortEdge™ window and door schedule**

| Type | Description  | Series | Glazing | Hardware |
|------|--|--------|---------|----------|
|      | Residential Sliding Window (75 mm frame) offering inline reveals creating concealed framing and sashes with excellent weather and superior thermal performance | 753    |         |          |
|      | Residential Awning Window (75 mm frame) offering inline reveals creating concealed framing and sashes with excellent weather and superior thermal performance  | 755    |         |          |

**Residential SoundOUT window and door schedule**

| Type | Description                        | Series | Glazing | Hardware |
|------|------------------------------------|--------|---------|----------|
|      | SoundOUT™ Secondary Sliding Window | 531    |         |          |
|      | SoundOUT™                          | 532    |         |          |

| Type | Description                      | Series | Glazing | Hardware |
|------|----------------------------------|--------|---------|----------|
|      | Secondary Casement Window        |        |         |          |
|      | SoundOUT™ Secondary Sliding Door | 533    |         |          |

#### 4.4 TYPICAL SELECTIONS BY SECTOR

##### Education

| Type                  | Series        | Hardware | Glazing | AS 1428 Compliance |
|-----------------------|---------------|----------|---------|--------------------|
| Sliding Window        | 462           |          |         |                    |
| Sliding Door          | 704           |          |         |                    |
| Top Hung Sliding Door | 50E3          |          |         |                    |
| Hinged Door           | 50/400        |          |         |                    |
| Fixed                 | 400/424       |          |         |                    |
| Trickle ventilation   | AWS Ventient™ |          |         |                    |

##### Aged care

| Type                | Series        | Hardware | Glazing | AS 1428 Compliance |
|---------------------|---------------|----------|---------|--------------------|
| Sliding Window      | 452           |          |         |                    |
| Sliding Door        | 618           |          |         |                    |
| Fixed               | 400           |          |         |                    |
| Trickle ventilation | AWS Ventient™ |          |         |                    |

##### Multi-residential

| Type                | Window        | Hardware | Glazing | AS 1428 Compliance |
|---------------------|---------------|----------|---------|--------------------|
| Awning windows      | 466           |          |         |                    |
| Sliding door        | 704           |          |         |                    |
| Fixed               | 400/424       |          |         |                    |
| Sliding window      | 462           |          |         |                    |
| Trickle ventilation | AWS Ventient™ |          |         |                    |

#### 4.5 TRICKLE VENTILATION SYSTEM - AWS VENTIENT

##### Ventilation schedule

|                 | A | B | C | D |
|-----------------|---|---|---|---|
| Window type     |   |   |   |   |
| Ventilator type |   |   |   |   |

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.

Window type: Nominate the windows to be fitted within trickle ventilators. Use the same designation as the window and door schedule.

Ventilator type: Select from the following:

- Standard sub-head 100 mm.
- Sub-head with vent box 100 mm.

- Standard sub-head 150 mm.
- Sub-head with vent box 150 mm.
- Head extension 50 mm.
- Head extension 100 mm.

#### 4.6 PERFORMANCE

##### Window and glazed door performance schedule

|   | A | B | C |
|---|---|---|---|
| Total system U-Value (W/m <sup>2</sup> .K)          |   |   |   |
| Total system SHGC                                   |   |   |   |
| Airborne sound insulation                           |   |   |   |
| Visible transmittance (T <sub>vis</sub> )           |   |   |   |
| Reflectance (%)                                     |   |   |   |
| WERS Energy rating%: Heating                        |   |   |   |
| WERS Energy rating%: Cooling                        |   |   |   |
| AGWA Glass Compliance Certificate                   |   |   |   |
| AGWA Window Compliance Certificate                  |   |   |   |
| Water penetration resistance (Pa)                   |   |   |   |
| Fire-resistance level (FRL)                         |   |   |   |
| Ultimate limit state (ULS) wind pressure (Pa)       |   |   |   |
| Serviceability limit state (SLS) wind pressure (Pa) |   |   |   |
| Openable (free) area (m <sup>2</sup> )              |   |   |   |

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.

Total system U-Value (W/m<sup>2</sup>.K): Insert the thermal transmittance value used for determining NCC conformance, and calculated to BCA (2022) Spec 37. These should be obtained from tests to NFRC 100 (2023). Select the product to fulfil design and compliance requirements. See NATSPEC TECHnote DES 015 on NCC energy efficiency.

Total system SHGC: Insert the solar heat gain coefficient value used for determining NCC compliance. These should be obtained from tests to NFRC 200 (2023). Select the product to fulfil design and compliance requirements.

Airborne sound insulation: State the required rating to AS/NZS ISO 717.1 (2004) for either the weighted sound reduction index (R<sub>w</sub>) or weighted sound reduction index with spectrum adaptation (R<sub>w</sub> + C<sub>tr</sub>). The NCC cites AS/NZS ISO 717.1 (2004). The current edition is AS ISO 717.1 (2024). This rating is for a building system e.g. partition wall, of which the building element is only one component. It may be better to provide the rating in the appropriate system schedule. It is advisable to obtain the advice of an acoustic consultant on the selection of an R<sub>w</sub> or R<sub>w</sub> + C<sub>tr</sub> rating for airborne sound transmission reduction. Refer to NATSPEC TECHnote DES 032 for information.

Visible transmittance (T<sub>vis</sub>): The visible light passing directly through the glass. The higher the T<sub>vis</sub>, the more daylight.

Reflectance (%): A maximum value is often a council requirement. Refer to the ABCB Glazing calculator available from [www.abcb.gov.au/resources](http://www.abcb.gov.au/resources). Delete if this requirement is more appropriately covered in the **Glass schedule**.

WERS Energy rating: Star rating system operated by AGWA.

AGWA Glass Compliance Certificate: Insert Required or Not required. The AGWA Glass Compliance Certificate will cover only products that conform to AS 1288 (2021).

AGWA Window Compliance Certificate: Insert Required or Not required. The AGWA Window Compliance Certificate will cover only products that conform to AS 1288 (2021) and AS 2047 (2014).

Water penetration resistance (Pa): e.g. 150 Pa.

Fire-resistance level (FRL): State the required level to AS 1530.4 (2014), delete or state Not applicable. See NATSPEC TECHnote DES 020 on fire behaviour of building materials and assemblies.

Ultimate and serviceability limit state wind pressure (Pa): Nominate the design wind pressures for the project to AS/NZS 1170.2 (2021) (for residential and commercial buildings) or AS 4055 (2021) (for Class 1 and 10a buildings). AS 2047 (2014) Appendix A includes an informative guide to design wind pressure.

Openable (free) area (m<sup>2</sup>): State the openable area in m<sup>2</sup> to achieve NCC requirements for natural ventilation.

**Window locks and latches performance schedule**

|   | A | B | C |
|---|---|---|---|
| Durability (D)                                  |   |   |   |
| Key security (K)                                |   |   |   |
| Cylinder security (S <sub>c</sub> )             |   |   |   |
| Physical security of locks (S)                  |   |   |   |
| Physical security of locksets (S <sub>L</sub> ) |   |   |   |
| Corrosion classification (C)                    |   |   |   |
| Classification to AS 4145.1 (2008)              |   |   |   |

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.

Durability rating (D): Select from D1 to D10. Refer to AS 4145.1 (2008) clause 3.3.

Keying security (K): Select from K1 to K10. Refer to AS 4145.1 (2008) clause 3.4.

Cylinder security (S<sub>c</sub>): Select from Sc1 to Sc10. Refer to AS 4145.1 (2008) clause 3.5.

Physical security of locks (S): Select from S1 to S10. Refer to AS 4145.1 (2008) clause 3.6.

Physical security of locksets (S<sub>L</sub>): Select from SL1 to SL10. Refer to AS 4145.1 (2008) clause 3.7.

Corrosion classification (C): Select from C1 to C10. Refer to AS 4145.1 (2008) clause 3.8. Refer to the documented project atmospheric corrosivity categories in *0171 General requirements*. See NATSPEC TECHnote DES 010 for information on atmospheric corrosivity classification.

Classification to AS 4145.1 (2008): The classification is a combination of the designations for lockset security, lock security, durability, corrosion, key security and cylinder security, e.g. S<sub>L</sub>4/D6/C6/K6/S<sub>c</sub>4.

**4.7 SCREENS****Screen schedule**

|                    | A | B | C |
|--------------------|---|---|---|
| Product            |   |   |   |
| Type               |   |   |   |
| Frame: Material    |   |   |   |
| Frame: Finish      |   |   |   |
| Frame: Colour      |   |   |   |
| Frame: Gloss level |   |   |   |
| Mesh type          |   |   |   |

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: Delete if the selection is by generic performance.

Type: e.g. Flyscreen, Fall prevention screen, Bushfire screen. See BCA (2022) D3D29 and BCA (2022) H5D3 for openable windows requiring fall prevention devices, screens or barriers.

Frame:

- Material: e.g. Aluminium or PVC-U.
- Finish: e.g. Powder coat, Anodised, Paint, Clear finish, No applied finish. Coordinate paint finishes using paint type designation from *0671 Painting*.
- Colour: For powdercoating, nominate colour from Dulux or AkzoNobel Interpon powder coatings catalogue. For anodised, available colours include Natural silver, Bronze and Black.
- Gloss level: e.g. Gloss, Satin or Matte. Note the lower the gloss level the greater the durability. The loss of gloss levels over time will vary between colours, climatic regions, powder types and exposed areas of the building.

For powdercoating, as a rule the performance features of colour are:

- Light pastel colours: The most durable.
- Darker colours: Absorb more heat and sunlight and tend to age more rapidly.



- Bright colours: Reds, yellows and oranges are produced using synthetic organic pigments. While manufacturers may use the highest grade pigments available, these types of colours tend not to retain their bright original colour.

Mesh type: e.g. Coated aluminium, Fibreglass, Corrosion-resistant steel or Bronze. Document here or in the **Window and glazed door schedule**. For bushfire-prone areas, refer to AS 3959 (2018) for details of construction requirements associated with the BAL of the site. AS 3959 (2018) calls for screens of aluminium, corrosion-resistant steel or bronze with a maximum aperture of 2 mm to buildings assessed as being in a BAL-12.5, BAL-19 or BAL-29 zone and corrosion-resistant steel or bronze in buildings assessed as being in a BAL-40 or BAL-FZ zone. Fibreglass mesh is excluded in all bushfire areas. Document bushfire shutters in *0457 External screens*. See NATSPEC TECHnote DES 018 on bushfire protection.

#### 4.8 SECURITY WINDOW SCREENS

##### Security window screen schedule

|                          | A | B | C |
|--------------------------|---|---|---|
| Product                  |   |   |   |
| Type to AS 5039.1 (2023) |   |   |   |
| Material                 |   |   |   |
| Finish                   |   |   |   |
| Colour                   |   |   |   |
| Gloss level              |   |   |   |
| Hinges: Material         |   |   |   |
| Hinge: Fixing            |   |   |   |
| Hardware                 |   |   |   |

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: Delete if the selection is by generic performance.

Type to AS 5039.1 (2023): AS 5039.1 (2023) clause 2.2 describes the three security door and window screen infill types as follows:

- Type 1 – Medium aperture infill prevents an a human arm from passing through.
- Type 2 – Large aperture infill prevents a human body from passing through.
- Type 3 – Small aperture infill prevents human limbs and most insects passing through.

Material: e.g. Steel, Stainless steel or Aluminium.

Finish: See AS 5039.1 (2023) 3.3.2 for corrosion protection finishes.

Colour: For powdercoating, consult the manufacturer's colour charts. For anodised, available colours include Natural silver, Bronze and Black.

Gloss level: e.g. Texture, Matt, Satin or Gloss. Not all gloss levels are available across the colour ranges.

Hinges:

- Material: e.g. Aluminium, Stainless steel or Steel.
- Fixing: Fasteners. See AS 5039.1 (2023) clause 3.8.

Hardware: See AS 5039.1 (2023) clause 4.8. If the manufacturer's standard lock and hardware are not acceptable, nominate hardware to comply. Coordinate with your hardware schedule.

#### 4.9 GLAZING

##### Glass schedule

|                                   | A | B | C |
|-----------------------------------|---|---|---|
| Glass type                        |   |   |   |
| Glass thickness (mm)              |   |   |   |
| Body tint colour                  |   |   |   |
| Interlayer colour                 |   |   |   |
| Surface coating: Description      |   |   |   |
| Surface coating: Colour           |   |   |   |
| Reflective coating: Colour        |   |   |   |
| Reflective coating: % reflectance |   |   |   |

|                                  | A | B | C |
|----------------------------------|---|---|---|
| Surface pattern                  |   |   |   |
| Surface processing: Method       |   |   |   |
| Surface processing: Pattern      |   |   |   |
| Surface processing: Colour       |   |   |   |
| Edge processing                  |   |   |   |
| Number of edges processed        |   |   |   |
| Fire-resistance level (FRL)      |   |   |   |
| Bullet resistance classification |   |   |   |
| Safety markings                  |   |   |   |

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.

This schedule can be used for projects if a large number of different glass types are used or if the glazing requires more detailed specification than it is appropriate to include in the **Window and glazed door seal schedule**. If this schedule is used, coordinate with the **Window and glazed door schedule** so that each glass type is associated with the relevant window or glazed door.

Glass type: Refer to NATSPEC TECHnote PRO 006 for guidance on glass types. Refer to **Special glasses schedule** for decorative glass types.

Glass thickness (mm): It is generally not necessary to document thickness. Nominate a thickness if:

- The glass is to be thicker than required by AS 1288 (2021) or applicable regulations.
- There are unusual conditions requiring detailed calculations for which the designer should be responsible.

In other cases, the determination of thickness is usually within the competence of the glazing contractor.

Body tint colour: e.g. Grey, Bronze, Green, Blue. Consult the manufacturer for colours available. Do not use body tinted wired glass (cast or polished) in locations exposed to the sun; fracture may result.

Interlayer colour: For laminated glasses only. Consult the manufacturer for colours available.

Surface coating:

- Description: Describe by coating function, e.g. Solar control, Low emission, Self-cleaning, Decorative or by coating type, e.g. Pyrolytic hard coating, Vacuum sputtered or Ceramic. Coatings are best described by the manufacturer's brand name. Self-cleaning surface coatings are coatings applied to glazing that dissolve dirt (photoactive) and shed water (hydrophilic) using natural UV light and rain.
- Colour: e.g. Grey, Bronze, Green, Blue. Consult the manufacturer for colours available.

Reflective coating:

- Colour: e.g. Silver, Gold, Bronze. Consult the manufacturer for colours available. Reflective coatings may be available on either clear or body tinted float. Consult manufacturer.
- % reflectance: Consult the manufacturer for reflectances available. Delete if this requirement is more appropriately covered in the **Window and glazed door performance schedule**. The manufacturer's brand name is often the best way to identify tinted, reflective, and patterned glasses.

Surface pattern: For patterned glass only. Proprietary patterns are best described by the manufacturer's brand name. Patterns include diffuse reflection (picture glass).

Surface processing:

- Method: e.g. Screen printing with ceramic paint fused to the surface, Sandblasting, Acid etching.
- Pattern: Proprietary patterns are best described by the manufacturer's brand name.
- Colour: Applicable to screen printed patterns only.

Edge processing: Maximum width varies with thickness. Wired glass is restricted to rough arrised edges. Consult with processor. Refer also to NATSPEC TECHnote PRO 006 for more information on this topic. Common edge types and typical applications for each edge type are:

- None (clean cut, no processing).
- Flat ground: Silicone structural glazing with exposed edges.
- Flat polished: Silicone structural glazing if edge condition is critical for aesthetic purposes.
- Ground pencil edge: Mirrors, decorative furniture glass.
- Polished pencil edge: Mirrors, decorative furniture glass.

- Ground mitre: Silicone structural glazing.
- Bevelled: Mirrors, decorative furniture glass.
- Seamed edges: Normal edge treatment for heat-treated glass.

Number of edges processed: e.g. 1 long, 2 long, All.

Fire-resistance level (FRL): For fire-resistant glass only. e.g. (- /60/ -).

Bullet resistance classification: For bullet-resistant glass only. Consult the manufacturer for options.

Safety markings: Describe line or patterns to AS 1288 (2021) clause 5.19 on making glass visible. AS 1428.1 (2009) clause 6.6 requires a solid and non-transparent contrasting line to the full width of the glazing if a building is required to be accessible. The NCC cites AS 1428.1 (2001) and AS 1428.1 (2009). The current edition is AS 1428.1 (2021).

### Special glasses schedule

|  | A | B | C |
|--|---|---|---|
| Mirrored   |   |   |   |
| Patterned  |   |   |   |
| Ceramic-coated glass: Base glass                 |   |   |   |
| Ceramic-coated glass: Coating colour             |   |   |   |
| Ceramic-coated glass: Coating application method |   |   |   |
| Acid etched                                      |   |   |   |
| Sandblasted                                      |   |   |   |

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.

Refer to NATSPEC TECHnote PRO 006 for guidance on special (decorative) glass types and their properties.

### Plastics glazing schedule

|   | A | B | C |
|---|---|---|---|
| Polycarbonate sheet: Type                     |   |   |   |
| Polycarbonate sheet: Abrasion resistance      |   |   |   |
| Polycarbonate sheet: Fire hazard properties   |   |   |   |
| Acrylic sheet                                 |   |   |   |
| Reinforced polyester sheet: Type              |   |   |   |
| Reinforced polyester sheet: Surface treatment |   |   |   |
| Reinforced polyester sheet: Mass/unit area    |   |   |   |

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.

Polycarbonate sheet:

- Type: e.g. Transparent, Translucent, Opaque.
- Abrasion resistance: Consult the manufacturer.
- Fire hazard properties: e.g. Spread-of-Flame Index, Heat and smoke release rates. Consult the manufacturer.

Acrylic sheet and Reinforced polyester sheet: For types and properties, consult the manufacturer.

### Insulating glass units (IGUs) schedule

|                                 | A | B | C |
|---------------------------------|---|---|---|
| Product                         |   |   |   |
| Outer pane: Glass type          |   |   |   |
| Outer pane: Thickness (mm)      |   |   |   |
| Outer pane: Colour/coating type |   |   |   |

|                                 | A | B | C |
|---------------------------------|---|---|---|
| Inner pane: Glass type          |   |   |   |
| Inner pane: Thickness (mm)      |   |   |   |
| Inner pane: Colour/coating type |   |   |   |
| Spacer width (mm)               |   |   |   |
| Gas filling: Type               |   |   |   |

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.

Consult manufacturers for available combinations. If the units are intended for noise reduction, it may be necessary to document a weighted sound reduction index ( $R_w$  or  $R_w + C_{tr}$ ) rating for the assembly.

See **Glass schedule** for guidance on glass pane type and thickness.

Outer pane/Inner pane: Colour/coating type: e.g. Solar reflective or Low emissivity. Delete if no coating is required. State which surface of which pane is to be coated.

Spacer width (mm): Sizes available are 6, 8, 10, and 12.

Gas filling: Type: e.g. Air, Argon, Krypton, Sulfur hexafluoride ( $SF_6$ ). The latter is a heavy gas used to enhance acoustic performance. It is also a very potent greenhouse gas.

#### 4.10 ANCILLARY COMPONENTS AND FITTINGS

##### Trim schedule

|                   | A | B | C |
|-------------------|---|---|---|
| Product           |   |   |   |
| Trim              |   |   |   |
| Door architrave   |   |   |   |
| Window architrave |   |   |   |

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.

Trim: e.g. Plain angle, Shadow angle. Use manufacturer's descriptions.

##### Window and glazed door seal schedule

|                               | A | B | C |
|-------------------------------|---|---|---|
| Product                       |   |   |   |
| Function                      |   |   |   |
| Carrier material and finish   |   |   |   |
| Seal insert type and material |   |   |   |
| Complementary seal            |   |   |   |

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.

Window and door seals: Nominate type here, or cross reference to *0455 Door hardware*.

Product: Full identification will allow deletion of the following generic descriptions.

Function: Select:

- Acoustic seals.
- Fire and smoke seals.
- Cold draught, dust and ember seals.
- Light seals.
- Insect and vermin seals.

Carrier material and finish: e.g. Brass, Anodised aluminium.

Seal insert type and material: e.g. Polypropylene pile.

Complementary seal: Describe that part of a sealing system that is fixed to the frame and threshold.

See BCA (2022) J5D5 and BCA (2022) H6D2(1)(b)(iii) for the sealing of windows and doors.

#### Pile weatherstrips schedule

|          | A | B | C |
|----------|---|---|---|
| Product  |   |   |   |
| Material |   |   |   |

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: Full identification will allow deletion of the following generic descriptions.

Material: e.g. Extruded, Pile.

#### Weather bars schedule

|          | A | B | C |
|----------|---|---|---|
| Product  |   |   |   |
| Material |   |   |   |

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: Full identification will allow deletion of the following generic descriptions.

Material: e.g. Metal.

#### Threshold drain schedule

|   | A | B | C |
|---|---|---|---|
| ACO FlowTHRU Integrated Stainless Steel Threshold Drain |   |   |   |

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.

ACO FlowTHRU Integrated Stainless Steel Threshold Drain: Designed to offer a practical solution for applications if a flush sill is required. It allows internal and external floor surfaces to have the same finish level with no elevated threshold to create a trip hazard or interrupt the space. It is compatible with the following AWS door products:

- Series 542 Sliding Door.
- Series 618 Sliding Door.
- Series 731 Sliding Door.
- Series 411 and 412 Bi-fold Door.
- Series 704 Sliding Door.
- Series 831 and 832 Bi-fold Door.

### 4.11 WINDOW HARDWARE

#### Window hardware schedule

|                                 | A | B | C |
|---------------------------------|---|---|---|
| Hinges                          |   |   |   |
| Sash balances                   |   |   |   |
| Stays                           |   |   |   |
| Sash lift and pulls             |   |   |   |
| Sash operator                   |   |   |   |
| Sash operator remote controller |   |   |   |
| Locks, catches and bolts        |   |   |   |

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.

The schedule can be used to document the quality and performance requirements of window hardware on the basis of window type, e.g. Aluminium awning or Aluminium sliding door or, so that the supplier or a specialist window hardware consultant can prepare a complete window-by-window schedule listing each proprietary item for every window or glazed door.

Alternatively, it can be used to directly document selected proprietary items with inherent quality or performance characteristics matching your requirements for each window or glazed door. Nominate type here, or cross reference to *0455 Door hardware*.

Hinges: Document brand, series, product number. If documenting generically, describe the size, material, finish and type, e.g. 75 x 40 mm SSS loose pin butt.

Sash balances: For double-hung windows, document brand, series, product number. If documenting generically, describe the type, tube length and diameter, colour, sash weight and foot type (for attaching the balance to the sash), e.g. Spiral balance – brown 610 x 14 mm diameter, 8 kg, with detachable foot.

Stays: For casement and awning windows. Document brand, series, product number. If documenting generically, describe the type (friction for manually operated, non-friction for mechanically operated), width (narrow for aluminium), track length, sash weight, material and finish (e.g. Galvanized steel, Stainless steel). Restrictor stays can be specified to limit the opening of windows for safety reasons.

Sash lift and pulls: Use sash lifts for double-hung windows and pulls for sliding, casement and awning windows. Document brand and product number. If documenting generically, describe the type (e.g. D-handle, Ring pull) size, material and finish.

Sash operators: For awning windows and skylights. Sash operators generally fall into two categories:

- Chain winder: A proprietary device capable of opening and closing a projecting sash by means of a chain retracting into a winder box fixed to the sill, self-locking in all positions, manually operable by a sill mounted winding handle without moving the internal insect screen. Document brand, series, product number. If documenting generically, describe the type (Keyed, Non-keyed) extension length (often referred to as the opening size), sash weight, material, finish and colour.
- Remote control operator: A proprietary device for opening or closing louvres or a projecting sash, in banks if required, by means of a mechanical linkage manually or power operated from a convenient level, self-locking in all positions.

Sash operator remote controllers: Document brand, series, product number. If documenting generically, describe the means of operation (e.g. Electric, Pneumatic) and type (e.g. Wall mounted switch, Remote control handpiece). Only applicable to remote control sash operators. Delete if this type of sash operator has not been selected.

Locks, latches and bolts: Document brand, series, product number. If documenting generically, describe the lock or latch type or function (Non-lockable, Lockable, Push lock, Deadlock), material and finish. Deadlocks are suggested for external windows within 3 m of the ground, for security.

If applicable, document the handle type, e.g. Lever handle (generally recommended instead of knobs, for children, the elderly and the disabled - clearance between the lever handle and the sash face should be between 35 and 45 mm).

AS 1428.2 (1992) clause 23.4 requires window handles in trafficable areas to conform with the requirements for door handles in clause 23.3.

## 4.12 KEYING

### Key codes schedule

| Window no. | KD | KA group code | Location               |             |                     |
|------------|----|---------------|------------------------|-------------|---------------------|
|            |    |               | Building code and name | Floor level | Space code and name |
|            |    |               |                        |             |                     |
|            |    |               |                        |             |                     |
|            |    |               |                        |             |                     |

If a detailed window hardware schedule is not available for pricing purposes at the time of tendering, the tenderers should at least be given a **Key codes schedule** showing which KA groups will apply to the project, and the number of locks (preferably identified by their individual window numbers) in each group. However, it is preferable to provide the full **Key codes schedule** to tenderers unless this is precluded by security considerations.

Window no.: Give each window a unique number, either corresponding to the space in which the window is located: e.g. G 01/A and G 01/B would both be windows accessing room G 01; or number windows sequentially (and independently from the spaces) on each floor. Floor 1 windows: e.g. W101, W102. For scheduling purposes it is advisable to provide the space number and name with the window number, this facilitates the recognition of room usage and hardware type, and is informative when the hardware schedule is provided (often) for tendering without accompanying plans.

If proprietary hardware is required to be keyed to the overall master key system, document those requirements in the worksection detailing the proprietary system (e.g. partition, window).

### REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

|   |      |  |
|---|------|--|
| AS ISO 717  |      | Acoustics - Rating of sound insulation in buildings and of building elements   |
| AS/NZS ISO 717.1  | 2004 | Airborne sound insulation  |
| AS 1231   | 2000 | Aluminium and aluminium alloys - Anodic oxidation coatings   |
| AS 1288   | 2021 | Glass in buildings - Selection and installation  |
| AS 1428   |      | Design for access and mobility   |
| AS 1530   |      | Methods for fire tests on building materials, components and structures  |
| AS 1530.4   | 2014 | Fire-resistance tests for elements of construction   |
| AS 2047   | 2014 | Windows and external glazed doors in buildings   |
| AS 2208   | 2023 | Safety glazing materials in buildings  |
| AS/NZS 2904   | 1995 | Damp-proof courses and flashings   |
| AS 3715   | 2002 | Metal finishing - Thermoset powder coating for architectural applications of aluminium and aluminium alloys              |
| AS 4145   |      | Locksets and hardware for doors and windows  |
| AS 4145.1   | 2008 | Glossary of terms and rating system  |
| AS 4145.2   | 2008 | Mechanical locksets for doors and windows in buildings   |
| AS 4666   | 2012 | Insulating glass units   |
| AS/NZS 4667   | 2000 | Quality requirements for cut-to-size and processed glass   |
| AS/NZS 4668   | 2000 | Glossary of terms used in the glass and glazing industry   |
| AS 5039   |      | Security door and window screens   |
| AS 5039.1   | 2023 | Classification and performance   |
| AS 5039.2   | 2024 | Installation   |
| BCA D3D29   | 2022 | Access and egress - Construction of exits - Protection of openable windows   |
| AAMA 701/702  | 2023 | Performance specification for pile weatherstrips (AAMA 701) and polymer weatherseals (AAMA 702)                          |
| ASTM C920   | 2018 | Standard specification for elastomeric joint sealants  |
| ASTM C1048  | 2018 | Standard specification for heat-strengthened and fully tempered flat glass   |
| ASTM C1311  | 2022 | Standard specification for solvent release sealants  |
| NFRC 100  | 2023 | Procedure for determining fenestration product U-factors   |
| NFRC 200  | 2023 | Procedure for determining fenestration product solar heat gain coefficient and visible transmittance at normal incidence |
| EN 14179  |      | Glass in buildings - Heat soaking thermally toughened soda lime silicate safety glass                                    |
| EN 14179-1  | 2016 | Definition and description   |
| ISO 11600   | 2002 | Building construction - Jointing products - Classification and requirements for sealants                                 |
| <b>The following documents are mentioned only in the Guidance text:</b> |      |  |
| AS ISO 717  |      | Acoustics - Rating of sound insulation in buildings and of building elements   |
| AS ISO 717.1  | 2024 | Airborne sound insulation  |
| AS/NZS 1170   |      | Structural design actions  |
| AS/NZS 1170.2   | 2021 | Wind actions   |
| AS 1428   |      | Design for access and mobility   |
| AS 1428.1   | 2001 | General requirements for access - New building work  |
| AS 1428.1   | 2009 | General requirements for access - New building work  |
| AS 1428.1   | 2021 | General requirements for access - New building work  |
| AS 1428.2   | 1992 | Enhanced and additional requirements - Buildings and facilities  |
| AS 1530   |      | Methods for fire tests on building materials, components and structures  |
| AS 1530.2   | 1993 | Test for flammability of materials   |
| AS/NZS 2343   | 1997 | Bullet-resistant panels and elements   |
| AS 2665   | 2001 | Smoke/heat venting systems - Design, installation and commissioning  |
| AS 3959   | 2018 | Construction of buildings in bushfire-prone areas  |
| AS 4055   | 2021 | Wind loads for housing   |
| AS 5039   |      | Security door and window screens   |
| AS 5039.3   | 2023 | Methods of test  |
| AS 5203   | 2016 | Protection of openable windows/ fall prevention - Test sequence and compliance method                                    |
| BCA D3D16   | 2022 | Access and egress - Construction of exits - Thresholds   |
| BCA H5D3  | 2022 | Class 1 and 10 buildings - Safe movement and access - Barriers and handrails   |
| BCA H6D2  | 2022 | Class 1 and 10 buildings - Energy efficiency - Application of Part H6  |
| BCA J5D5  | 2022 | Energy efficiency - Building sealing - Windows and doors   |
| BCA Spec 37   | 2022 | Energy efficiency - Calculation of U-Value and solar admittance  |
| AGWA Guide Window   | 2020 | A guide to window and door selection   |
| GBCA Buildings  | 2021 | Green Star Buildings   |
| NATSPEC DES 010   |      | Atmospheric corrosivity categories for ferrous products  |
| NATSPEC DES 015   |      | NCC - BCA Volume One Energy efficiency provisions  |
| NATSPEC DES 018   |      | Bushfire protection  |
| NATSPEC DES 020   |      | Fire behaviour of building materials and assemblies  |
| NATSPEC DES 032   |      | Airborne sound insulation  |
| NATSPEC GEN 006   |      | Product specifying and substitution  |
| NATSPEC GEN 024   |      | Using NATSPEC selections schedules   |
| NATSPEC PRO 006   |      | Glass types used in buildings  |
| NATSPEC TR 01   |      | Specifying ESD   |
| BS 2571   | 1990 | Specification for general-purpose flexible PVC compounds for moulding and extrusion                                      |
| BS 4255   |      | Rubber used in preformed gaskets for weather exclusion from buildings  |
| BS 4255-1   | 1986 | Specification for non-cellular gaskets   |
| AAMA 800  | 2016 | Voluntary specifications and test methods for sealants   |