# 0456p ASSA ABLOY louvre assemblies

Branded worksection

This branded worksection *Template* has been developed by NATSPEC in conjunction with **ASSA ABLOY Australia Pty Ltd** (the Product Partner) and may be used whilst the Product Partner is licensed to distribute it. The copyright remains with NATSPEC. As with all NATSPEC worksections, it is the responsibility of the user to make sure it is completed appropriately for the project. The user should also review its applicability for local conditions and regulations. Check [www.natspec.com.au](https://www.natspec.com.au/) for the latest updated version.

Worksection abstract

This branded worksection *Template* is applicable to Assa Abloy fixed ventilation louvre assemblies and operable louvre assemblies.

How to use this worksection

Customise this worksection *Template* for each project. See [A guide to NATSPEC worksections](https://www.natspec.com.au/a-guide-to-natspec-worksections) ([www.natspec.com.au](https://www.natspec.com.au/a-guide-to-natspec-worksections)) 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:

* *0432 Curtain walls*, if the project contains windows and window-and-spandrel assemblies in addition to louvred windows.
* *0451 Windows and glazed doors*, if the project contains windows other than louvre windows.
* *0461 Glazing* for types of glass.
* *0462 Structural silicone glazing* for adhesive fixed glazing.
* *0463 Glass blockwork*, if the project contains glass blockwork in addition to louvred windows.
* *0524 Partitions - glazed* for glazed internal partitions.
* *0671 Painting*.
* *0673 Powder coatings*.
* *0746 Air grilles*.

Related branded worksections by ASSA ABLOY:

* *0455p ASSA ABLOY door hardware*.
* *0458p ASSA ABLOY automatic doors*.

Documenting this and related work

You may document this and related work as follows:

* Schedule louvre assemblies 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.
* Coordinate ventilating louvre assemblies with the mechanical consultant and requirements of the mechanical system, if any.
* 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](https://www.agwa.com.au/).
* For information on the Australian Glass and Window Association (AGWA) Accreditation Program, see [Accreditation Schemes (agwa.com.au)](https://agwa.com.au/Consumers/AGWA/MembersPortal/Compliance/Accreditation-Schemes.aspx).

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

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

* Daylighting of buildings.
* Guarantees and warranties.
* 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.
* Window seals to minimise air leakage when louvres 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).
* Glass and frame selection with an acceptable visible transmittance for natural lighting.
* High performance glass, e.g. Low-E.
* Durable components, particularly for corrosion resistance.

The following may be specified by including additional text:

* Re-use of salvaged louvres.
* Recycled material content, e.g. Aluminium frames.

Refer to NATSPEC TECHreport TR 01 on specifying ESD.

## GENERAL

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience. Under the iconic brands such as Interlock, Lockwood, Whitco, Yale, Record and Austral Monsoon Building Products, ASSA ABLOY Australia has long been developing innovative products. In the growing electromechanical security sector, the Group has a leading position in access control, identification technology, automatic doors and security.

### RESPONSIBILITIES

#### General

Requirement: Provide Assa Abloy louvre assemblies, as documented.

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

### COMPANY CONTACTS

#### Austral Monsoon Building Products technical contacts

Website: [www.ambps.com.au/contact-us.php](https://www.ambps.com.au/contact-us.php)

### 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.

### STANDARDS

#### Louvre window assemblies

Selection and installation: To AS 2047 (2014).

AS 2047 (2014) does not cover fixed louvres.

Building classification:

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.

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

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.

### MANUFACTURER’S DOCUMENTS

#### Technical manuals

Fixed ventilation louvre assemblies: [www.ambps.com.au/products/fixed-ventilation-louvres.php](https://www.ambps.com.au/products/fixed-ventilation-louvres.php)

Operable louvre assemblies: [www.ambps.com.au/products/operable-louvres.php](https://www.ambps.com.au/products/operable-louvres.php)

### 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:

* Louvres - continuous: Louvres that run continuously past, and are supported by, concealed framing or brackets.
* Louvres - horizontal: Louvres that span horizontally between frame stiles, mullions or vertical supports.
* Louvres - vertical: Louvres that span vertically between frame heads and sills, or horizontal supports.
* 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).

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

### SUBMISSIONS

#### Certification

Louvre window assemblies: Submit evidence that the louvre windows conform to AS 2047 (2014).

See AS 2047 (2014) clause 8.3.

Protection of openable windows: Submit a certificate of on-site fall prevention testing.

On-site testing may not be required if type tests of window assemblies are available.

#### 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: 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 the following:



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

#### 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:

* Frame member profiles.
* Hardware, fittings and accessories including fastener details.

Louvre window manufacturers may provide standard type proprietary hardware capable of accepting keyed alike systems, construction keying and master key systems. If louvre windows are to be fitted with non-standard hardware supplied by others, make sure that the selected louvre window suites can accept the selected hardware. Document hardware in SELECTIONS.

* Junctions and trim to adjoining surfaces.
* Layout (sectional plan and elevation) of the window assembly.
* Methods of assembly.
* Methods of installation including fixing, joint sealing and flashing.
* Provision for vertical and horizontal expansion.

#### Subcontractors

General: Submit names and contact details of proposed manufacturers and installers.

Evidence of experience:

Delete if manufacturer/installer details are not required.

#### Warranties

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

### INSPECTION

#### Notice

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

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

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

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

## PRODUCTS

### 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.

#### 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.

#### Samples

Requirement: Provide samples of louvre system components as follows:

* Manufacturer's standard hardware and accessories, including louvre holders and operators, locks, latches, handles, catches, anchor brackets and attachments, masonry anchors and weatherseals (pile or extruded).
* Colour samples of prefinished production materials, showing the limits of the range of variation in the documented colour.
* Frame member profiles and louvre materials.
* Frame member joining techniques.

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

Labelling: Label each sample with the series code reference and date of manufacture.

#### 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.

#### Acoustic performance

Louvre assemblies: 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 **Louvre performance schedule**.

#### Marking

Louvre window assemblies: To AS 2047 (2014) Section 8.

Louvre window assemblies for housing must be labelled to AS 2047 (2014) clause 8.2. Timber louvre window assemblies for housing and louvre window assemblies other than for housing may conform to AS 2047 (2014) clause 8.2 or be provided with a certificate to AS 2047 (2014) clause 8.3.

#### Protection of openable windows

Fall prevention: To BCA (2022) D3D29.

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

Testing: 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).

### FIXED VENTILATION LOUVRE ASSEMBLIES

#### AME50 Fixed Louvre Frame

Application: Suitable for air intake or exhaust on projects where moderate air flow and low weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same blade materials. Can be used for screening purposes. Do not use for plant areas containing electrical equipment directly behind the louvres. Specific applications include plant rooms, equipment enclosures and air handling units.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997) and AS 4055 (2021), and can be designed for use in cyclonic regions.

Description: Narrow profile modular ventilation louvre system for narrow wall constructions with a louvre depth of 50 mm. Blades constructed of extruded aluminium sections, mounted in the horizontal plane.

Maximum module size (W x H): 2000 x 2000 mm.

Maximum door size (W x H): 820 x 2100 mm.

Free area: 42%.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

#### AME100 Fixed Louvre Frame

Application: Suitable for air intake or exhaust on projects where moderate air flow and good weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same blade materials. Can be used for screening purposes. Do not use for plant areas containing electrical equipment directly behind the louvres. Specific applications include louvre penthouses, building air intake areas, car park ventilation, plant rooms, cooling tower screens and natural wall ventilation.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Standard profile framed and modular ventilation louvre system with a louvre depth of 100 mm and box section framing. Blades constructed of extruded aluminium sections with an integral double rain-trap design, mounted in the horizontal plane.

Maximum module size (W x H): 2000 x 2000 mm.

Maximum door size (W x H): 820 x 2100 mm.

Free area: 50%.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

#### AME100 Fixed Louvre Continuous

Application: Suitable for air intake or exhaust on projects where moderate air flow and good weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same blade materials. Can be used for screening purposes. Do not use for plant areas containing electrical equipment directly behind the louvres. Specific applications include louvre penthouses, building air intake areas, car park ventilation, plant rooms, cooling tower screens and natural wall ventilation.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Framed and modular ventilation louvre system with a louvre depth of 100 mm. Blades constructed of extruded aluminium sections with an integral double rain-trap design, mounted in the horizontal plane, and fixed to vertical mullions to provide the appearance of unbroken horizontal blade lines.

Maximum module size: Unlimited using joiners and obscured mullion supports.

Maximum door size (W x H): 820 x 2100 mm.

Free area: 50%.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

#### AME100 Fixed Louvre Flange Fit

Application: Suitable for air intake or exhaust on projects where moderate air flow and good weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same blade materials. Can be used for screening purposes. Do not use for plant areas containing electrical equipment directly behind the louvres. Specific applications include louvre penthouses, building air intake areas, car park ventilation, plant rooms, cooling tower screens and natural wall ventilation.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Standard profile flange fit and modular ventilation louvre system with a louvre depth of 100 mm. Blades constructed of extruded aluminium sections with an integral double rain-trap design, mounted in the horizontal plane.

Maximum module size (W x H): 2000 x 2000 mm.

The module size can be extended by the use of mullions and transoms.

Maximum door size (W x H): 820 x 2100 mm.

Free area: 50%.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

#### AME100HV 2 Stage Fixed Louvre Frame

Application: Suitable for air intake or exhaust on projects where moderate air flow and superior weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same first stage blade materials. Specific applications include lift motor rooms, plant rooms, substations and natural wall ventilation.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Fixed two stage framed and modular ventilation louvre system with a louvre depth of 200 mm, consisting of the following:

* First stage: Horizontal double rain-trap blades.
* Second stage: Vertical chevron blades.

Maximum module area: 6 m2.

Standard door size (W x H): 920 x 2100 mm.

Other sizes can be fabricated to suit project requirements. Contact Austral Monsoon Building Products for more information.

Free area: 50%.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

#### AMF120 Single Stage Fixed Louvre Frame (0.55 mm Colorbond/1.2 mm aluminium or zinc)

Application: Suitable for air intake or exhaust on projects where moderate air flow and low weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same blade materials. Can be used for screening purposes. Specific applications include plant rooms and equipment enclosures.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Fixed single stage ventilation louvre system. Blades constructed of folded sheet metal, mounted in the horizontal plane.

Maximum module area: 6 m2.

Standard door size (W x H): 920 x 2100 mm.

Other sizes can be fabricated to suit project requirements. Contact Austral Monsoon Building Products for more information.

Free area: 50%.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

#### AMF150 2 Stage Fixed Louvre Frame

Application: Suitable for air intake or exhaust on projects where moderate air flow and superior weatherproofing performance are required. Louvre panels can be used in combination with access doors using the same blade materials. Can be used for screening purposes. Specific applications include plant rooms and equipment enclosures.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997) and AS 4055 (2021), and can be designed for use in cyclonic regions.

Description: Fixed two stage ventilation louvre system. Blades constructed of folded sheet metal, mounted in the horizontal plane.

Maximum module area: 6 m2.

Free area: 50%.

#### Koolbreeze Fixed Ventilation Louvre

Application: Suitable for air intake or exhaust on projects where good air flow and optimal weatherproofing performance are required. Specific applications include factories, warehouses, plant rooms, substations, sports stadiums and secure enclosures where permanent ventilation is required.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Fixed ventilation louvre system. Blades constructed of perforated material to provide air flow as well as vermin-proofing and security without the need for mesh.

Maximum size (W x H): 3600 x 3600 mm for individual bays.

The overall louvre area can be extended by the use of mullions and transoms.

Free area: 35%.

More or less free area can be accommodated to suit project requirements. Contact Austral Monsoon Building Products for more information.

Tested for pressure drop performance. Consult Austral Monsoon Building Products for test results.

### OPERABLE LOUVRE ASSEMBLIES

#### Aluminium Stormglaze Operable Louvre

Application: Suitable for projects where high levels of natural light and ventilation are required. Specific applications include schools, sports stadiums, multipurpose halls, swimming complexes, shopping centres and office buildings.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 2047 (2014) and AS 4055 (2021), and can be designed for use in cyclonic regions.

Description: Glazed aluminium framed operable louvre window system with a typical blade height between 350 mm and 450 mm.

Maximum size (W x H): 2600 x 5000 mm for individual bays.

Free area: 86% when fully open.

#### Easiflow 100 Operable Louvre

Application: Suitable for projects where variable light and ventilation are required. Specific applications include factories, warehouses, sports halls, swimming pool complexes, multipurpose halls, schools and education facilities.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 2047 (2014), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Modular operable louvre system with a frame depth of 100 mm and adjustable blade angle up to 45°.

Maximum size (W x H): 1500 x 3600 mm for individual bays.

The overall louvre area can be extended by the use of mullions and transoms.

Free area: 37% when fully open.

#### Easiflow 180 Operable Louvre

Application: Suitable for projects where variable light and ventilation are required. Specific applications include factories, warehouses, sports halls, swimming pool complexes, multipurpose halls, schools and education facilities.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 2047 (2014), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Modular operable louvre system with a frame depth of 180 mm and adjustable blade angle up to 85°.

Maximum size (W x H): 1500 x 3600 mm for individual bays.

The overall louvre area can be extended by the use of mullions and transoms.

Free area: 67% when fully open.

#### Coolite Operable Louvre

Application: Suitable for projects where high levels of natural light and ventilation are required. Specific applications include factories, warehouses, sports halls, swimming pool complexes and multipurpose halls.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS 2047 (2014), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Operable louvre system with a typical blade height between 350 mm and 400 mm. Blades constructed of Galvabond RHS, which can be cladded with any profiled cladding material, including the same material as the wall cladding, and translucent or clear acrylic.

Maximum size (W x H): 2400 x 3600 mm for individual bays.

Free area: 85% when fully open.

#### Maxiflow Operable Louvre

Application: Suitable for projects where high levels of natural light and ventilation are required and in cyclone shelter buildings. Specific applications include factories, warehouses, sports halls, swimming pool complexes and multipurpose halls.

Conforms to AS/NZS 1170.0 (2002), AS/NZS 1170.1 (2002), AS/NZS 1170.2 (2021), AS/NZS 1664.1 (1997), AS/NZS 1664.2 (1997), AS 2047 (2014), AS 4055 (2021) and AS 4100 (2020), and can be designed for use in cyclonic regions.

Description: Operable louvre system with a typical blade height between 350 mm and 400 mm. Blades constructed of Galvabond RHS, which can be cladded with any cladding material, including perforated sheet, timber, and translucent or clear acrylic.

Maximum size (W x H): 2400 x 3600 mm for individual bays.

Free area: 85% when fully open.

### SCREENS

Make sure the louvre assembly is located so that when fully opened the louvre blades are clear of screens, or document an appropriate restricted opening to prevent interference between the clips and the screen.

#### Fixed screens

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

#### Retractable screens

General: Proprietary retractable screens, 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.

#### 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.

#### Screens in bushfire‑prone areas

General: Screen consisting of mesh or perforated sheet with a maximum aperture of 2 mm, fixed taut into frame to AS 3959 (2018).

Material for mesh or perforated sheet:

* BAL-25, BAL-19 or BAL-29: Aluminium, corrosion-resistant steel or bronze.
* BAL-40, BAL-FZ: Corrosion-resistant steel or bronze.

Refer to AS 3959 (2018) for details of construction requirements associated with the BAL of the site. See NATSPEC TECHnote DES 018 on bushfire protection.

### 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.

#### Safety glass

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.

Type: Grade A.

Marking: To AS 1288 (2021) clause 5.23.

### ALUMINIUM FRAME FINISHES

Delete finish not required.

#### Powder coatings

Service condition category to AS 3715 (2025):

AS 3715 (2025) Section 2 describes atmospheric classifications (C1 to CX) and typical conditions for each classification, that are aligned with those described in AS 4312 (2019). Refer to the documented project atmospheric corrosivity categories in *0171 General requirements* and to *0673 Powder coatings*. See NATSPEC TECHnote DES 010 for information on atmospheric corrosivity categories.

Coating performance:

The AAMA standards represent the various warranty performances available and should be selected appropriate to the class of the project and the application. Select from:

* To AAMA 2603 (2022) or AS 3715 (2025). Applicable to internal environments of all classes of the NCC or external environments of NCC Class 1 and 10a buildings.
* To AAMA 2604 (2022). Applicable to all classes of the NCC.
* To AAMA 2605 (2022). Applicable to all classes of the NCC.

Coating type:

Thermoset polyester powder coating or Thermoset fluoropolymer powder coating.

Polyester coating grade:

General or Commercial. Delete if using fluoropolymer powder coating.

#### Anodised

Standard: To AS 1231 (2000).

Austral Monsoon Building Products offers anodising in 20 μm and 25 μm. 25 μm thick anodising is recommended for severe industrial and coastal conditions. Document the thicknesses in the **Fixed ventilation louvre assemblies schedule** and the **Operable louvre assemblies schedule**.

### ANCILLARY COMPONENTS AND FITTINGS

#### Fasteners

Requirement: To the manufacturer’s recommendations.

#### Extruded gaskets and seals

General: Provide seals, as documented.

Location or function:

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).

#### Pile weatherstrips

Standard: To AAMA 701/702 (2023).

AAMA 701/702 (2023) is a guide to selecting pile weatherstrips and weatherseals used in windows and doors. It defines requirements to restrict air and water infiltration.

Location:

Materials: Polypropylene or equivalent pile and backing, low friction silicone treated, ultraviolet stabilised, fixed to the frame to the manufacturer’s recommendations.

## EXECUTION

### PRE-INSTALLATION

#### General

Timber reveals: Prime all surfaces of timber reveals that are to be painted before fixing to aluminium frames.

### LOUVRE ASSEMBLIES GENERALLY

#### General

Requirement: Install louvre frames, 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.

#### Weatherproofing

Flashing and weatherings: Install flashings, weather bars, 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

General: Do not penetrate metal flashings with fasteners.

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

Fasteners: Conceal fasteners.

Fastener spacing (nominal): 600 mm and maximum 150 mm from reveal ends.

#### Joints

General: Form tight fitted joints so that fasteners and fixing methods, such as pins, screws and adhesives, do not create pressure indentations 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.

#### Protection

Removal: Remove temporary protection measures from the following:

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

Temporary measures:

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).

### FIXED VENTILATION LOUVRE ASSEMBLIES

#### General

Installation: Screw fix stiles and mullions to the building structure. Provide weatherstrips to heads and sills.

#### Expansion joints

Requirement: Provide for expansion and contraction in continuous sections, at spacings not exceeding the manufacturer’s recommendations, or 6 m, whichever is the lesser.

Continuous sections include continuous louvres and interlocking mullions.

### OPERABLE LOUVRE ASSEMBLIES

#### Framed adjustable louvres

Installation: Screw fix the main frame to the building structure with monel or stainless steel screws or masonry anchors of the type recommended by the louvre manufacturer.

#### Glazing

Requirement: Install the glazing as follows:

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

Temporary marking: Use a method that does not damage the glazing. Remove marking on completion.

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

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

#### Operation

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

#### 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.

### COMPLETION

#### 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 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 instructions 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

Refer to *0171 General requirements* for appropriate warranty type and the terms covered in the warranty.

Type: Manufacturer’s warranty.

Period:

Refer to Austral Monsoon Building Products for the warranties available. Warranties are project specific and based on the specified colour and finish.

## 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.

### PERFORMANCE

#### Louvre performance schedule

|  | A | B | C |
| --- | --- | --- | --- |
| Total system U-Value (W/(m2.K)) |  |  |  |
| Total system SHGC |  |  |  |
| Airborne sound insulation |  |  |  |
| Visible transmittance (Tvis) |  |  |  |
| Reflectance (%) |  |  |  |
| WERS Energy rating: Heating |  |  |  |
| WERS Energy rating: Cooling |  |  |  |
| AGWA Glass Compliance Certificate |  |  |  |
| AGWA Window Compliance Certificate |  |  |  |
| Water penetration resistance (Pa) |  |  |  |
| Ultimate limit state (ULS) wind pressure (Pa) |  |  |  |
| Serviceability limit state (SLS) wind pressure (Pa) |  |  |  |
| Openable (free) area (m2) |  |  |  |

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 includes properties that may be relevant to glazed louvre assemblies only. If no glazed louvre assemblies are documented, remove these properties from the schedule.

Total system U-Value (W/(m².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 (Rw) or weighted sound reduction index with spectrum adaptation (Rw + Ctr). 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 Rw or Rw + Ctr rating for airborne sound transmission reduction. Refer to NATSPEC TECHnote DES 032 for information.

Visible transmittance (Tvis): The visible light passing directly through the glass. The higher the Tvis, 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](https://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.

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 (m2): State the openable area in m² to achieve NCC requirements for natural ventilation.

### FIXED VENTILATION LOUVRE ASSEMBLIES

If the louvres are connected to the air conditioning or ventilation system, obtain the value required for the maximum pressure drop at 2.0 m/s face velocity from the consultant and include as a performance requirement.

#### Fixed ventilation louvre assemblies schedule

|  | A | B | C |
| --- | --- | --- | --- |
| Product |  |  |  |
| Frame: Material |  |  |  |
| Frame: Finish |  |  |  |
| Frame: Height and width (mm) |  |  |  |
| Louvre blade: Material |  |  |  |
| Louvre blade: Finish |  |  |  |
| Screen |  |  |  |

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

Product: Select from the following:

* AME50 Fixed Louvre Frame.
* AME100 Fixed Louvre Frame.
* AME100 Fixed Louvre Continuous.
* AME100 Fixed Louvre Flange Fit.
* AME100HV 2 Stage Fixed Louvre Frame.
* AMF120 Single Stage Fixed Louvre Frame (0.55 mm Colorbond/1.2 mm aluminium or zinc).
* AMF150 2 Stage Fixed Louvre Frame.
* Koolbreeze Fixed Ventilation Louvre.

Frame: Material and Frame: Finish: Select from the following:

* AME50 Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100 Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100 Fixed Louvre Continuous: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100 Fixed Louvre Flange Fit: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100HV 2 Stage Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AMF120 Single Stage Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AMF150 2 Stage Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* Koolbreeze Fixed Ventilation Louvre: For aluminium, nominate powder coat. For Zincalume steel, select from powder coat or special paint finish. For Colorbond steel, Galvabond steel or stainless steel, nominate no applied finish. Contact Austral Monsoon Building Products to discuss other frame options.

Frame: Height and width (mm): Nominate the dimensions or document on the drawings.

Louvre blade: Material and Louvre blade: Finish: Select from the following:

* AME50 Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100 Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100 Fixed Louvre Continuous: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100 Fixed Louvre Flange Fit: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AME100HV 2 Stage Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AMF120 Single Stage Fixed Louvre Frame: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm), special colour anodising or other special paint finishes.
* AMF150 2 Stage Fixed Louvre Frame: For Colorbond steel, nominate no applied finish.
* Koolbreeze Fixed Ventilation Louvre: For aluminium, nominate powder coat. For Zincalume steel, select from powder coat or special paint finish. For Colorbond steel, Galvabond steel or stainless steel, nominate no applied finish. Contact Austral Monsoon Building Products to discuss other blade options.

Screen: Select from fibreglass, galvanized steel and stainless steel. AS/NZS 3666.1 (2011) clause 2.2.1 requires the provision of screens behind air intake louvres. Koolbreeze Fixed Ventilation Louvre uses perforated sheet metal for its blades and does not require any screen mesh.

### OPERABLE LOUVRE ASSEMBLIES

#### Operable louvre assemblies schedule

|  | A | B | C |
| --- | --- | --- | --- |
| Product |  |  |  |
| Frame: Material |  |  |  |
| Frame: Finish |  |  |  |
| Frame: Height and width (mm) |  |  |  |
| Louvre blade: Material |  |  |  |
| Louvre blade: Finish |  |  |  |
| Louvre blade: Cladding |  |  |  |
| Louvre blade: Height and width (mm) |  |  |  |
| Operation |  |  |  |
| Screen |  |  |  |
| Security bars |  |  |  |

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

Product: Select from the following:

* Aluminium Stormglaze Operable Louvre.
* Easiflow 100 Operable Louvre.
* Easiflow 180 Operable Louvre.
* Coolite Operable Louvre.
* Maxiflow Operable Louvre.

Frame: Material and Frame: Finish: Select from the following:

* Aluminium Stormglaze Operable Louvre: For aluminium, select from powder coat, clear anodised (15 μm, 20 μm or 25 μm) or special colour anodising.
* Easiflow 100 Operable Louvre: For aluminium, nominate powder coat. For Zincalume steel, select from powder coat, natural or special paint finish. For Colorbond steel or stainless steel, nominate no applied finish.
* Easiflow 180 Operable Louvre: For aluminium, select from mill finish or powder coat. For Zincalume steel, select from powder coat, natural or special paint finish. For Colorbond steel or stainless steel, nominate no applied finish.
* Coolite Operable Louvre: For Zincanneal steel, Zincalume steel or Galvabond steel, nominate powder coat.
* Maxiflow Operable Louvre: For Zincanneal steel, Zincalume steel or Galvabond steel, nominate powder coat.

Frame: Height and width (mm): Nominate the dimensions or document on the drawings.

Louvre blade: Material and Louvre blade: Finish: Select from the following:

* Aluminium Stormglaze Operable Louvre: For standard glass, performance glass, composite panels, polycarbonate sheeting, or acrylic or solid infill panel, nominate no applied finish. If glazing requires more detailed specification, document in the **Glass schedule** and include a cross reference here.
* Easiflow 100 Operable Louvre: For aluminium, nominate powder coat. For Zincalume steel, select from powder coat, natural or special paint finish. For Colorbond steel or stainless steel, nominate no applied finish.
* Easiflow 180 Operable Louvre: For aluminium, nominate powder coat. For Zincalume steel, select from powder coat, natural or special paint finish. For Colorbond steel or stainless steel, nominate no applied finish.
* Coolite Operable Louvre: For Galvabond steel, nominate powder coat. For Colorbond steel, or clear or translucent polycarbonate, nominate no finish.
* Maxiflow Operable Louvre: For Zincanneal steel or Galvabond steel, nominate powder coat. For clear or translucent polycarbonate, nominate no finish.

Louvre blade: Cladding: Contact Austral Monsoon Building Products to discuss cladding options. If glazed blade cladding options are nominated and they require more detailed specification, document in the **Glass schedule** and include a cross reference here.

Louvre blade: Height and width (mm): Nominate the dimensions or document on the drawings.

Operation: Select from the following:

* Aluminium Stormglaze Operable Louvre: Select from manual lever handle, manual overlocking handle, manual hand winders, manual T handle with locking system or electrical actuators.
* Easiflow 100 Operable Louvre: Select from manual lever handle, manual hand winders or electrical actuators.
* Easiflow 180 Operable Louvre: Select from manual lever handle, manual hand winders or electrical actuators.
* Coolite Operable Louvre: Select from manual lever handle, manual overlocking handle, manual hand winders, manual T handle with locking system or electrical actuators.
* Maxiflow Operable Louvre: Select from manual lever handle, manual overlocking handle, manual hand winders, manual T handle with locking system or electrical actuators.

If electrical actuators are used, the louvres can be operated by push button controls or linked to a building management system for automatic operation via wind, rain, sun or time sensors.

Screen: Select from fibreglass, galvanized steel and stainless steel. AS/NZS 3666.1 (2011) clause 2.2.1 requires the provision of screens behind air intake louvres. If screens are not integral to the operable louvre assembly and provided as a separate system, document in the **Screen schedule** and include a cross reference here.

Security bars: e.g. Required, not required. Delete if no security bars are required on the project. Available as an option for Easiflow 100 Operable Louvre, Easiflow 180 Operable Louvre, Coolite Operable Louvre and Maxiflow Operable Louvre.

### 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.

If screens are integral to the fixed ventilation louvre assembly or operable louvre assembly and provided by Austral Monsoon Building Products, document screens in the **Fixed ventilation louvre assemblies schedule** or the **Operable louvre assemblies schedule**.

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, galvanized steel.
* Finish: e.g. Powder coat, anodised, no applied finish.
* Colour: For powder coating, consult the manufacturer’s colour charts. For anodised, available colours include natural silver, bronze and black.
* Gloss level: e.g. Texture, matt, satin, gloss. Not all gloss levels are available across the colour ranges.

Mesh type: e.g. Aluminium, fibreglass, stainless steel. 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.

### 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 |  |  |  |
| Surface pattern |  |  |  |
| Surface processing: Method |  |  |  |
| Surface processing: Pattern |  |  |  |
| Surface processing: Colour |  |  |  |
| Edge processing |  |  |  |
| Number of edges processed |  |  |  |

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 **Operable louvre assemblies schedule**. If this schedule is used, coordinate with the **Operable louvre assemblies schedule** so that each glass type is associated with the relevant louvre window.

Glass type: Refer to NATSPEC TECHnote PRO 006 for guidance on glass types.

Glass thickness (mm): Consult the manufacturer for available thicknesses. The maximum thickness for single glazed glass is 13.52 mm. The maximum thickness for IGU is 24 mm.

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, 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 **Louvre 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.

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 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 2025 Metal finishing - Thermoset powder coatings for architectural applications of aluminium and aluminium alloys

AS 3959 2018 Construction of buildings in bushfire-prone areas

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 5203 2016 Protection of openable windows/ fall prevention - Test sequence and compliance method

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)

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

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

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 1170.0 2002 General principles

AS/NZS 1170.1 2002 Permanent, imposed and other actions

AS/NZS 1170.2 2021 Wind actions

AS/NZS 1664 Aluminium structures

AS/NZS 1664.1 1997 Limit state design

AS/NZS 1664.2 1997 Allowable stress design

AS 2665 2001 Smoke/heat venting systems - Design, installation and commissioning

AS/NZS 3666 Air-handling and water systems of buildings - Microbial control

AS/NZS 3666.1 2011 Design, installation and commissioning

AS 4055 2021 Wind loads for housing

AS 4100 2020 Steel structures

AS 4312 2019 Atmospheric corrosivity zones in Australia

AS 5039 Security door and window screens

AS 5039.3 2023 Methods of test

BCA H5D3 2022 Class 1 and 10 buildings - Safe movement and access - Barriers and handrails

BCA Spec 37 2022 Energy efficiency - Calculation of U-Value and solar admittance

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 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 2603 2022 Voluntary specification, performance requirements and test procedures for pigmented organic coatings on aluminum extrusions and panels (with coil coating appendix)

AAMA 2604 2022 Voluntary specification, performance requirements and test procedures for high performance organic coatings on aluminum extrusions and panels (with coil coating appendix)

AAMA 2605 2022 Voluntary specification, performance requirements and test procedures for superior performing organic coatings on aluminum extrusions and panels (with coil coating appendix)