



TECHNICAL BRIEFING - ESSENTIAL INFORMATION FOR GLASS SPECIFICATION

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There are various key considerations when designing and determining the appropriate glass for an application. These range from the safety requirements and breakage characteristics of the glass type to the aesthetic or energy performance of the product. (See TechDirect Technical Briefing "Sustainability: Glass Selection & Terminology".) Viridian can help you to determine your glass requirements based on your design although the design requirement and fitness for purpose, falls within the task of the designer.

When requesting assistance with glass specification it makes it easier and quicker for Viridian to reply to your request if the appropriate information is supplied. The following lists the relevant information required for the glass determination in line with AS1288-2006 Glass in buildings – Selection and Installation.

Vertical Glazing

- Supply a drawing (Elevation and Plan)
- Provide wind load - ULS & SLS for area under consideration (if the application is external)
- Panel size: Height (mm) x Width (mm)
- Details of how the panel is supported
- Internal or external application

Roof Glazing

- Supply a drawing
- Provide wind load - ULS & SLS for roof cladding (different to that used for vertical cladding)
- Live Load - determine from AS1170 pt1.

If unsure which load is appropriate then consult the Building Surveyor for advice.

- Panel size, distance up slope (mm) x distance across slope (mm)
- Angle of panel measured from the horizontal
- Details of how the panel is supported, 4 edges or 2 opposite edges
- Advise if the panel is supported on top of the glass as well as under the glass
- Distance above the floor or ground (metres) to the highest point of the glass.

Fin Glazing

- Supply a drawing
- Provide wind load - ULS & SLS
- Panel size: Height (mm) x Width (mm)
- Details of how the panel is supported at top and bottom.
- Internal or external application

Faceted Glazing

- Supply a drawing
- Provide wind load - ULS & SLS
- Panel size: Height (mm) x Width (mm)
- Details of how the panel is supported at top and bottom
- Angle between adjacent panels
- Internal or external application

Balustrade

- Supply a drawing
- Advise difference in level the glass is protecting
- Provide wind Load - ULS & SLS
- Live Load - Determine from AS1170 pt1. If unsure which load is appropriate then consult the Building Surveyor for advice.
- Panel size: Height (mm) x Width (mm).
- Details of how the panel is supported
- Details of how the handrail supported
- Internal or external application

Floor Glazing

- Supply a drawing
- Provide wind load - ULS & SLS
- Live Load - Determine from AS1170 pt1. If unsure which load is appropriate then consult the Building Surveyor for advice.
- Panel size: Height (mm) x Width (mm)
- Details of how the panel is supported
- Internal or external application

Pool Fence

- Supply a drawing
- Provide wind load - ULS & SLS
- Panel size: Height (mm) x Width (mm)
- Details of how the panel is supported

Fire Resistance

- What is the fire resistance level (FRL) required? (We need to know the level of integrity and/or level of integrity and insulation. This requirement can be found in the Building Code of Australia (BCA). The Building Surveyor should be able to provide this information also.
- Panel size: Height (mm) x Width (mm)
- Type of building (industrial, commercial or residential)
- Type of application (fire escape, window, partition etc.)
- Internal or external application

Thermal Assessments

- Viridian carries out thermal assessments for its customers. Please see TechDirect Technical Briefing "Thermal Stress and Thermal Fracture in Glass".

Further information

Please visit viridianglass.com or freecall 1800 810 403

Notes on Wind Loading

Ultimate Limit State Wind loading (ULS)

Serviceability Limit State wind load (SLS)

May be determined using AS1170 pt2 or AS4055 if applicable.

These wind loads should be evaluated for claddings including local pressure factors.

Loading will be different for vertical walls, roof and isolated installations such as wind breaks or balustrades on the same project. Consult structural engineer for advice.

Notes on Solar Control Requirement

This is represented by the Shading Coefficient (SC) or Solar Heat Gain Coefficient (SHGC).

The air conditioning design will have to assume or determine the energy coming through the facade. This is partially determined by the (SHGC) so the air-conditioning designer must assume a performance for the facade. The glass will have to perform at least to this assumption for the air-conditioning to perform adequately.

Notes on Insulation Requirement

This is represented by the U Value.

The air conditioning design will have to assume or determine the energy coming through the façade. This is partially determined by the U Value so the air-conditioning designer must assume a performance for the facade. The glass will have to perform at least to this assumption for the air-conditioning to perform adequately.

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