



## Vioneering® Specification: -/90/90 Glazing

### PERFORMANCE REQUIREMENT:

The Vioneering® -/90/90 glazing system shall be supplied and installed in accordance with the Acceptable Solutions and Fire Engineers Report and are to be considered as fire rated walls or fire rated doors in a fire rated wall to achieve an FRR of -/90/90 in accordance with AS1530.4.

Any Vioneering® glazed door systems shall be installed in accordance with NZS4520 to achieve an FRR of -/90/30 in accordance with AS1530.4.

Note: The Vioneering -/90/90 glazing system is non-load bearing. Surrounding structure should be designed to carry any required supporting loads.

FIXED PANEL		
Characteristic	Internal (DGU)	External (DGU)
<b>Glass thickness</b> (nominal)	45 mm	58
<b>Sound Reduction</b> (Rw glass only, EN140-3)	47 (-2, -3) dB	45 (-2, -2) dB
<b>Light Transmission</b> (EN140)	80%	73%
<b>U-value</b> (glass only, EN673)	3.5 W/m²K	1.1 W/m²K
<b>SHGC</b> (G value, EN410)	0.63	0.58

DOOR		
Characteristic	Internal (DGU)	External (DGU)
<b>Glass thickness</b> (nominal)	45 mm	58
<b>Sound Reduction</b> (Rw glass only, EN140-3)	46 (-2, -3) dB	45 (-2, -2) dB
<b>Light Transmission</b> (EN140)	80%	73%
<b>U-value</b> (glass only, EN673)	3.5 W/m²K	1.1 W/m²K
<b>SHGC</b> (G value, EN410)	0.63	0.58

### PRODUCT SPECIFIED

Proprietary System: Vioneering® -/90/90 Glazing System by Smoke Control T: 09 300 1980;  
[info@smokecontrol.co.nz](mailto:info@smokecontrol.co.nz)

The system consists of a propriety cold formed and seam welded steel profile, incorporating beading with concealed fixing and clear Class A safety Glass.

System parameters:

- a) Fire Performance:
  - i) Fixed and lights:
    - i. Internal application; -/90/90, Glass - Contraflam 90-4
    - ii. External application; -/90/90, Glass - Contraflam 90 Climaplus
  - ii) Door (both single and double):
    - i. Internal application; -/90/60, Glass - Contraflam 90-4
    - ii. External application; -/90/60, Glass - Contraflam 90 Climaplus
- b) Maximum sizes:
  - i) Fixed (-/90/90)
    - i. Single window 3600mm H x 1500mm W
    - ii. Partition – up to 4m height and unlimited width appropriate expansion joints and mullions

- ii) Door (-/90/90)
  - i. Single Door – 2440mm H x 1067mm W
  - ii. Double Door – 2440mm H x 1067mm W per leaf (total 2134mm W)
- iii) Lights (-/90/90)
  - i. Top light – total system height up to 4m
  - ii. Side lights - up to 4m height and unlimited width appropriate expansion joints and mullions
- c) Dimensions Frame Profile:
  - i) Fixed and lights:
    - i. Internal application – 65mm deep x 70mm wide
    - ii. External application – 65mm deep x 70mm wide
  - ii) Door frame (both single and double):
    - i. Internal application – 65mm deep x 70mm wide
    - ii. External application – 65mm deep x 70mm wide
  - iii) Door leaf (both single and double):
    - i. Internal application – 65mm deep x 70mm wide
    - ii. External application – 65mm deep x 70mm wide
- d) Framing types:
  - i) Galvanised
  - ii) Stainless steel (optional)
- e) Supporting construction type:
  - i) Masonry
  - ii) Concrete
  - iii) Fire rated plasterboard with steel or timber stud
- f) Door Hardware
  - i) Lock – Proprietary Mortice
  - ii) Handle – Kaba N602 & N601 series
  - iii) Closer
    - i. Single leaf – Dorma TS93
    - ii. Double leaf – Dorma TS93 GST
- g) Gasketing – Smoke Control proprietary integrated black rubber gasket
- h) System weight:
  - i) Fixed glazing
    - i. Internal; Nominally 94.5kg/m<sup>2</sup>
    - ii. External; Nominally 97kg/m<sup>2</sup>
  - ii) Door glazing
    - i. Internal; Nominally 94.5kg/m<sup>2</sup>
    - ii. External; Nominally 97kg/m<sup>2</sup>
- i) Powder-coating: Standard range 'Dulux Duralloy' Colours. Other colour ranges available on request.

Ancillary items required:

- j) Maintenance: All Visioneering systems shall be maintained by competent technicians in accordance with AS1851 and the manufacturers recommendations
- k) Safety decals: These can be installed external on the glazing in accordance with EN testing or can be factory etched internally into the glass assembly.
- l) Radiation shielding: Additional protective layers to be integrated into the glass assembly to provide EMF / Xray / Ionizing radiation shielding. As per agreed performance specification.
- m) Tinting and visibility control: Glass should include translucent privacy film or tinted DGU.
- n) Electronic hold open: Integrated 24v DC magnetic hold open is available in the door closer mechanism, alarm signal by others. Must be installed with a physical door stop (by others) to prevent door over swinging and damaging integrated hold open device.

## APPLICATIONS

- As defined by the Acceptable Solutions for the respective building type
- The Architects specification must align with the Fire Engineers Report for PS3 sign off.

Note: Some applications listed above may require a Performance Solution to be compliant. Please check with your Fire Engineer prior to specifying this product. Some concessions on the insulation rating are permitted in sprinklered buildings.

## INSTALLATION

The Visioneering® glazing systems shall be installed, certified, commissioned and tagged in accordance with NZS4520 and Smoke Control's (manufacturer) instructions by an ISO9001 Quality, ISO18001 WHS and ISO14001 Environment Accredited manufacturer.

### *Glazed Partitions*

The glazed partition shall be installed into a fire rated wall structure of a type listed in System Parameters Clause e) of this document. The FRR of the wall shall be at least -/90/90 when tested in accordance with AS1530.4. Appropriate expansion gaps shall be included between the glazed partition and the wall structure and approved fire rated mastic and/or silicone shall be applied to this gap.

### *Glazed Fire Doors*

Clearances between the bottom of the glazed door leaf and the floor shall be in accordance with NZS 4520 - Clause 5.3 and as follows:

- (a) Between the leaf and the top surface of the floor including any floor covering – not less than 3mm and not more than 10mm.
- (b) Between the leaf and the top of the non- combustible threshold – not more than 25mm.

Any floor coverings across the threshold should be in accordance with the Acceptable Solutions. Certification of these floor coverings is by others.

## FINAL CHECK

### *Glazed Partitions*

Once installed it shall be demonstrated that the glazing system includes the appropriate markings in the bottom of each glazed panel indicating glass model and toughening standard.

### *Glazed Fire Doors*

NZS 4520 Clause 5.5 commissioning testing shall be conducted to verify the self closing and latching function and the results recorded on the commissioning certificate provided in an applicable Operations and Maintenance Manual or equivalent QA report. The glazed fire door systems shall be then tagged with appropriate compliant tag in accordance with NZS4520 – 2010.

PS3 forms shall be issued by the sub-contractor in accordance with the construction contract.

All details and approvals are current as of the date displayed. This document supersedes all previous versions.

