Visioneering® Specification: -/90/90 Glazing

PERFORMANCE REQUIREMENT:

The Visioneering® -/90/90 glazing system shall be supplied and installed in accordance with the deem-to-satisfy building code requirements under NCC2019 C2.7 and Specification C1.1. for fire rated walls or openings in fire rated wall and achieve an FRL of -/90/90 in accordance with AS1530.4:2014.

Any Visioneering glazed door systems shall be installed in accordance with NCC C3.5 requirements and AS1905.1:2005 with the '*Stopline'* door system achieving an FRL of -/90/30. Both systems shall also be installed in accordance Smoke Control Pty Ltd manufacture recommendations.

Note: The Visioneering -/90/90 glazing system are non-load bearing. Surrounding structure should be designed to carry any required supporting loads. Structural adequacy with respect to FRL is not required for the glazed system in accordance with NCC 2019 Schedule 5 – Clause 6.

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

DOOR		
Characteristic	**Internal (DGU)**	**External (DGU)**
Glass thickness (nominal)	16mm	40-45mm
Sound Reduction (Rw glass only, EN140-3)	41 (-2, -2) dB	40 (-1, -4) dB
Light Transmission (EN140)	84%	77%
U-value (glass only, EN673)	4.7 W/m²K	1.1 W/m²K
SHGC (G value, EN410)	0.68	0.59

PRODUCT SPECIFIED

Proprietary System: Visioneering® -/90/90 Glazing System by Smoke Control T: 1300 665 471; info@smokecontrol.com.au

The system consists of a propriety cold formed and seam welded steel profile, incorporating beading with concealed fixing and tested 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; -/90/30, Glass - Contraflam 30
      ii. External application; -/90/30, Glass - Contraflam 30-2 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 (-/90/30)
i. Single Door – 2400mm H x 1200mm W
ii. Double Door – 2440mm H x 1200mm W per leaf (total 2400mm 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 – 90mm deep x 70mm wide
ii. External application – 90mm 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^2
ii. External; Nominally 97kg/m^2
ii) Door glazing
i. Internal; Nominally 34 kg/m^2
ii. External; Nominally 59 kg/m^2

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

- Fire walls in accordance with NCC C2.7 and Specification C1.1
- Non-required stairways, ramps and escalators (NCC D1.12 & Spec D1.12)
- Openings in fire walls in accordance with NCC C2.7 and Specification C1.1

Note: Some applications listed above may require a Performance Solution to be compliant. Please check with your Certifier prior to specifying this product.

INSTALLATION

The Visioneering glazing systems shall be installed, certified, commissioned and tagged in accordance with AS1905.1:2015 and Smoke Control Pty Ltd manufactures 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 FRL 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 AS1905.1:2015 - Clause 5.5.1. 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 AS1905.1:2015 – Clause 5.5.1. Certification these floor coverings is by others.

COMMISSIONING

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

AS1905.1: 2015 commissioning testing shall be conducted to verify opening forces and the results recorded on the commissioning certificate provided in an applicable Operations and Maintenance Manual or equivalent report. The glazed fire door systems shall be then tagged with appropriate compliant tag in accordance with AS1905.1:2015.

Certificates of Compliance shall be issued by the sub-contractor in accordance with National Construction Code A2.2.

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