



## Doors

4th Edition

## Windows



**VAN ACHT**  
GLASS & ALUMINIUM





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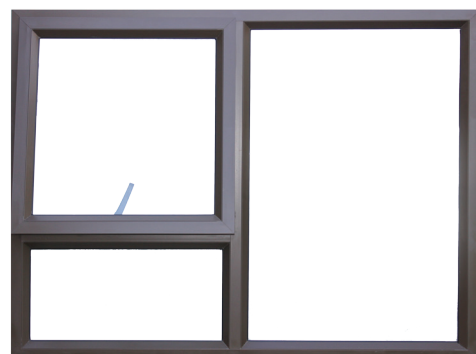




With great success, innovation and experienced gained in the wooden window and door industry, it was only a natural process for the company to branch out, and expand our market to meet the growing demands of South-African homeowners today. At VAGA ( Van Acht Glass and Aluminium) we strive to maintain the same quality, and service with which we have been associated with over the last 30years.

## Advantages of ALUMINIUM

- Strong material
- Larger sizes available
- Longevity and low maintenance
- Strong market awareness
- Availability
- Versatile
- Wide price range



# Patio Sliding Doors



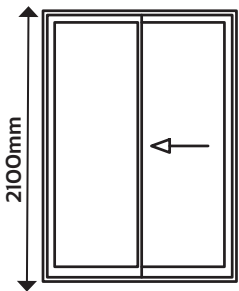
Please Note:  
Actual Sizes are 10mm  
smaller to accommodate  
fitment.

## Information & Special Features:

The patio sliding door range is also known as the contractors range or entry level range. Patio sliding doors are supplied with 5mm toughened safety glass, complying to SANS 10 400 (TSG) Part N glazing regulations and international standards.

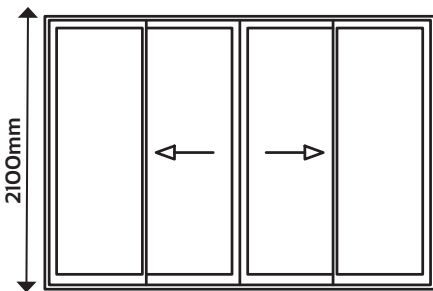
- Lead time 7-10 days for assembly
- O - Is the symbol for fixed panel
- X - Is the symbol for sliding panel
- LH or RH can be determined on site.
- Sliding windows available in the same configurations.
- Sliding window heights 900mm, 1200mm, 1500mm

### SINGLE SLIDING (OX / XO)



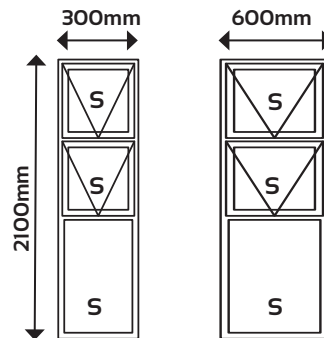
- Available Widths**
- 1500mm
  - 1800mm
  - 2100mm
  - 2400mm
  - 2700mm
  - 3000mm

### DOUBLE SLIDING (OXXO)

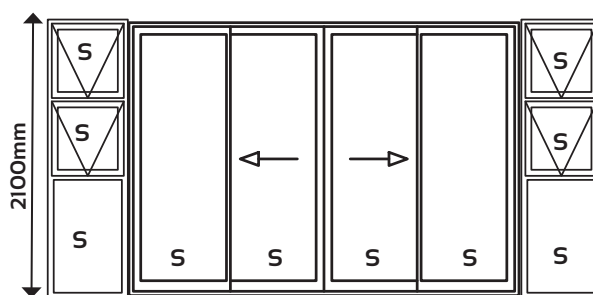
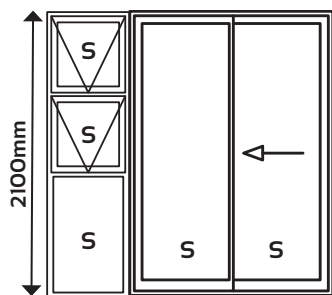


- Available Widths**
- 3000mm
  - 3600mm
  - 4200mm
  - 4800mm
  - 5400mm
  - 6000mm

#### Standard Sidelights



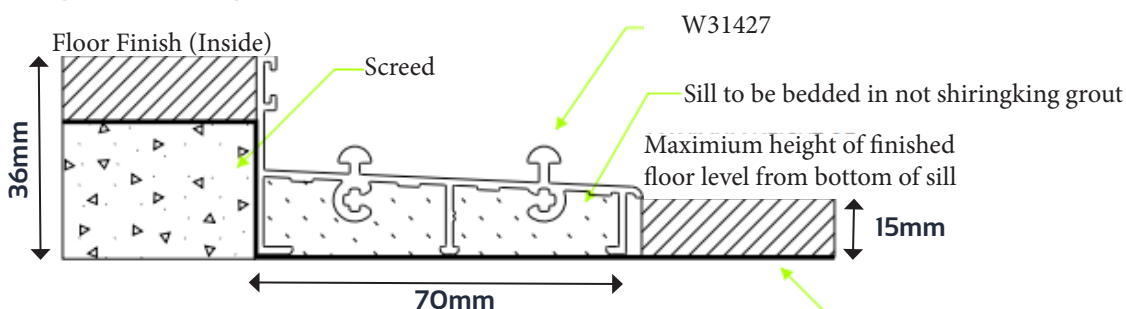
### SIDELIGHT OPTIONS



#### Sliding Door Toplights

When adding toplights to a sliding door it will change the design and enertia's. Toplights need support (steel beam or lintle) If the width is > 2400mm. Please ask your consultant to custom design your sliding door when adding toplights.

### Cill for Double Slider



3 Note: Sill bottom track to be fitted to floor with a non shrinking grout



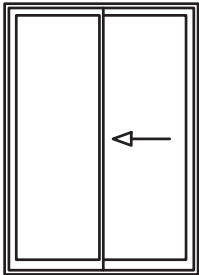
# Palace Sliding Doors



## Information & Special Features:

The palace sliding door range is a higher end product for the homeowner. The palace range is made to Architect specifications. This range can be supplied single or double glazing. Options of 60mm or 90mm doorstyles available.

### SINGLE SLIDING (OX / XO)

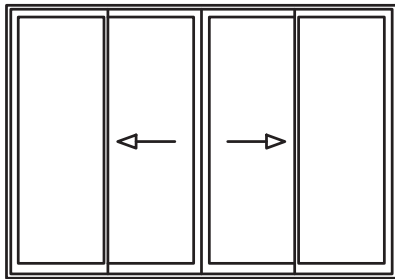


Available Width  
1500 mm - 3000mm

Available Height  
2100mm - 2700mm

- Lead time 14-21 days to manufacture
- O - Is the symbol for fixed panel
- X - Is the symbol for sliding panel
- LH or RH must specified when order is placed.

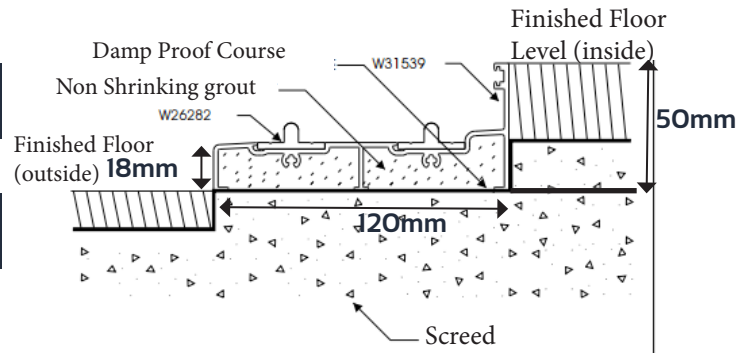
### DOUBLE SLIDING (OXXO)



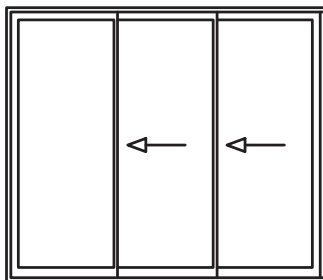
Available Width  
3000mm - 6000mm

Available Height  
2100mm-2700mm

#### Cill for Double Slider



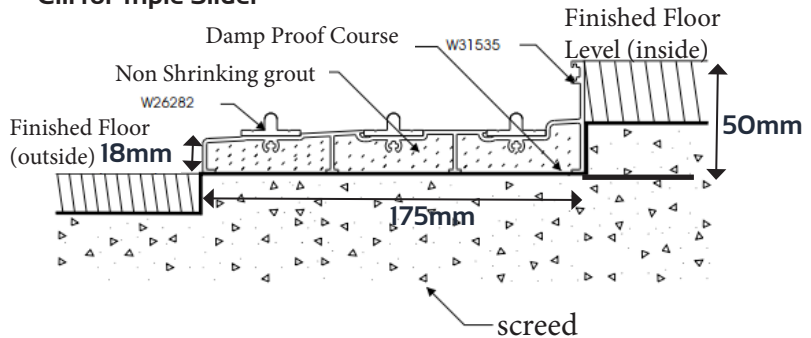
### TRIPLE SLIDING (OXX / XXO)



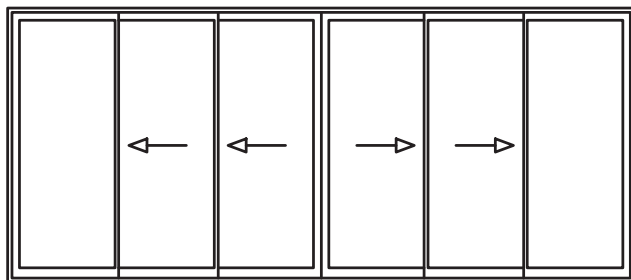
Available Width  
2600mm - 4400mm

Available Height  
2100mm-2700mm

#### Cill for Triple Slider



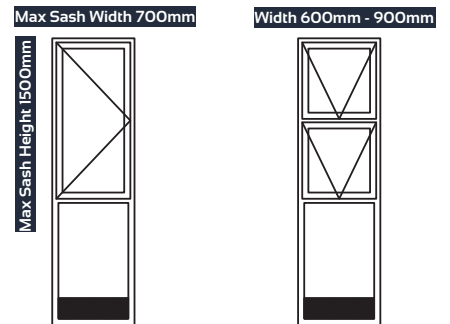
### DOUBLE TRIPLE SLIDING (OXXXXO)



Available Width  
4600mm - 6000mm

Available Height  
2100mm-2700mm

#### Standard Sidelights



Clip 44 (Shopfront)



# Vista Sliding Folding Doors

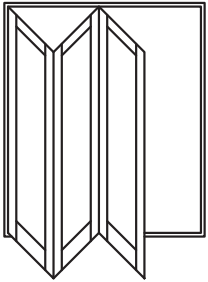
## Information & Special Features:

The Vista sliding door range is available with either 60mm or 90mm door stiles. Various glazing option available like Low-E & double glazing.

- Lead time 14-21 days for manufacturing
- LH or RH to be specified when the order is placed.
- Stacking Windows available in the same configurations.
- Stacking Window Heights 900mm, 1200mm & 1500mm



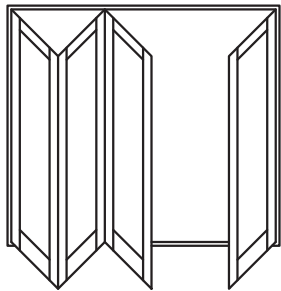
### 3 LEAF (L-R / R-L)



Available Width  
1800mm - 2700mm

Available Height  
2100mm - 2700mm

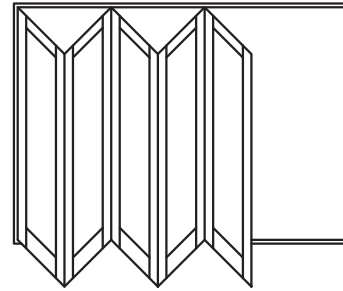
### 4 LEAF (L-R / R-L)



Available Width  
3000mm - 3600mm

Available Height  
2100mm - 2700mm

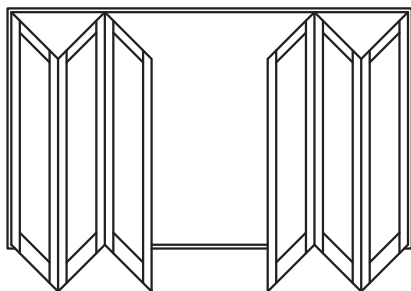
### 5 LEAF (L-R / R-L)



Available Width  
2400mm - 4200mm

Available Height  
2100mm - 2700mm

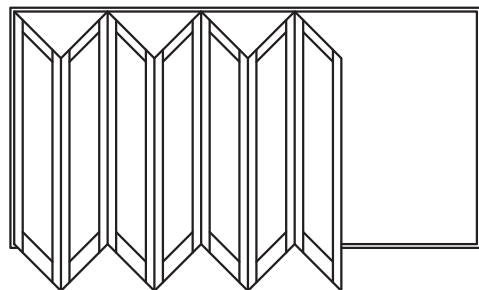
### 6 LEAF ( CENTRE OPENING-CO)



Available Width  
3000mm - 5100mm

Available Height  
2100mm - 2700mm

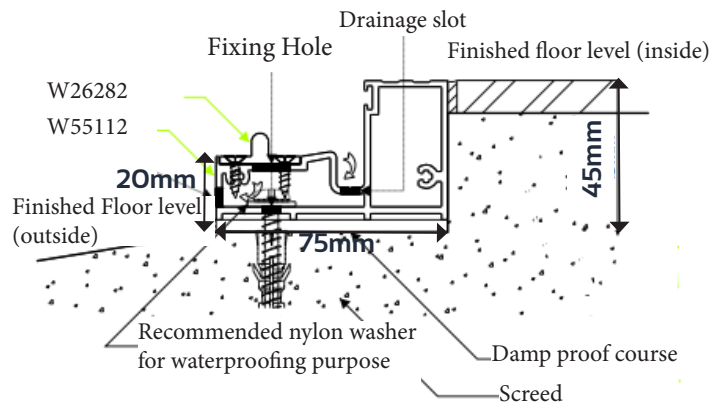
### 7 LEAF (L-R / R-L)



Available Width  
4800mm - 6000mm

Available Height  
2100mm - 2700mm

### Cill for Stacking Door







Sliding Folding Doors



Hinged Doors

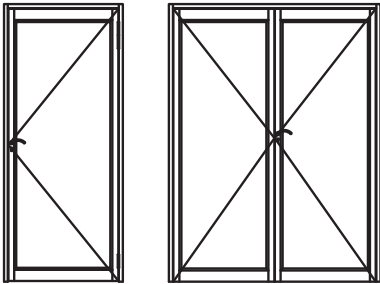


Sliding Doors

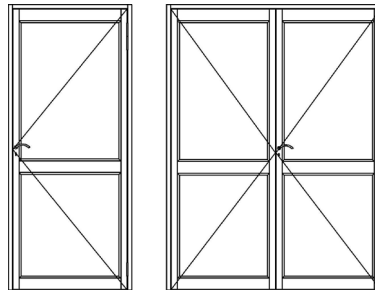


# Hinged Doors

G1 DOOR



G2 DOOR



## Information & Special Features:

- Standard door style width is 60mm for 2100mm high doors.
- Sill options: with or without sill.
- Sill height 30mm
- Please specify if door should open inwards or outwards.
- Please specify if the handle must be on the left or right when standing outside.

## YOSO Hinged Doors

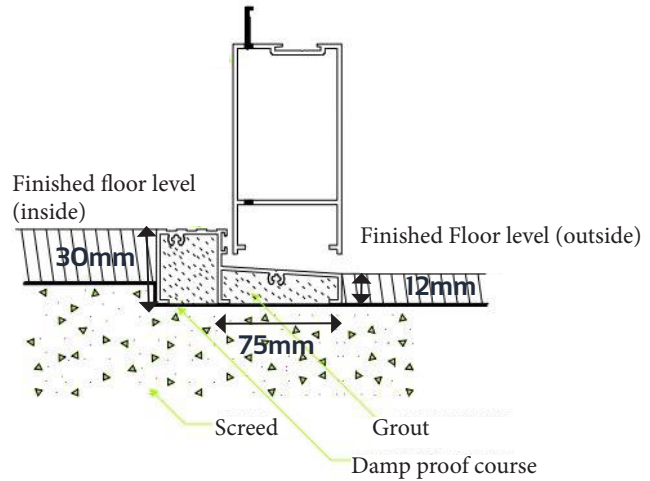


2 Panel YOSO  
Marine Ply  
900mmx2100mm



GTOP YOSO  
Marine Ply  
900mmx2100mm

### Hinged Door – Opening Out





# YOSO Contemporary Doors



## Information and Special Features

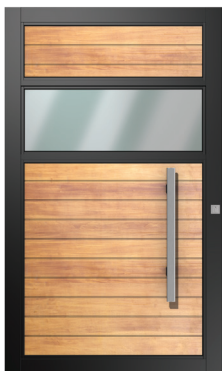
The YOSO door range is a unique modern alternative to the plain glass front door. YOSO doors are supplied pre hung with double glazing, handles & CISA Italian locks .

**Standard Sizes:** 1300x2100, 1600x2100, 1300x2380, 1600x2380

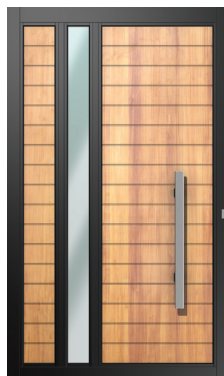
**Maximum Width:** 1600mm

**Timber Options:** Kiaat, Teak, Rosewood, Eucalyptus Grandis

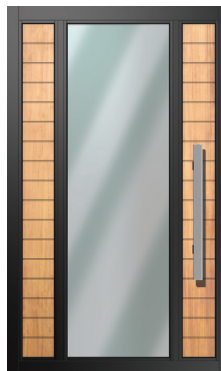
**Aluminium Frame Colours :** Standard colours , any other colours can be arranged on special request at additional costs.



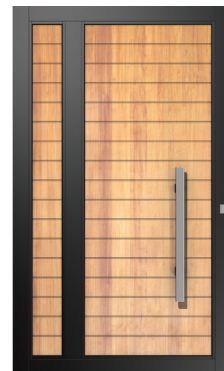
YOSO 1.2 PIV Y1



YOSO 1.2 PIV Y2



YOSO 1.2 PIV Y3

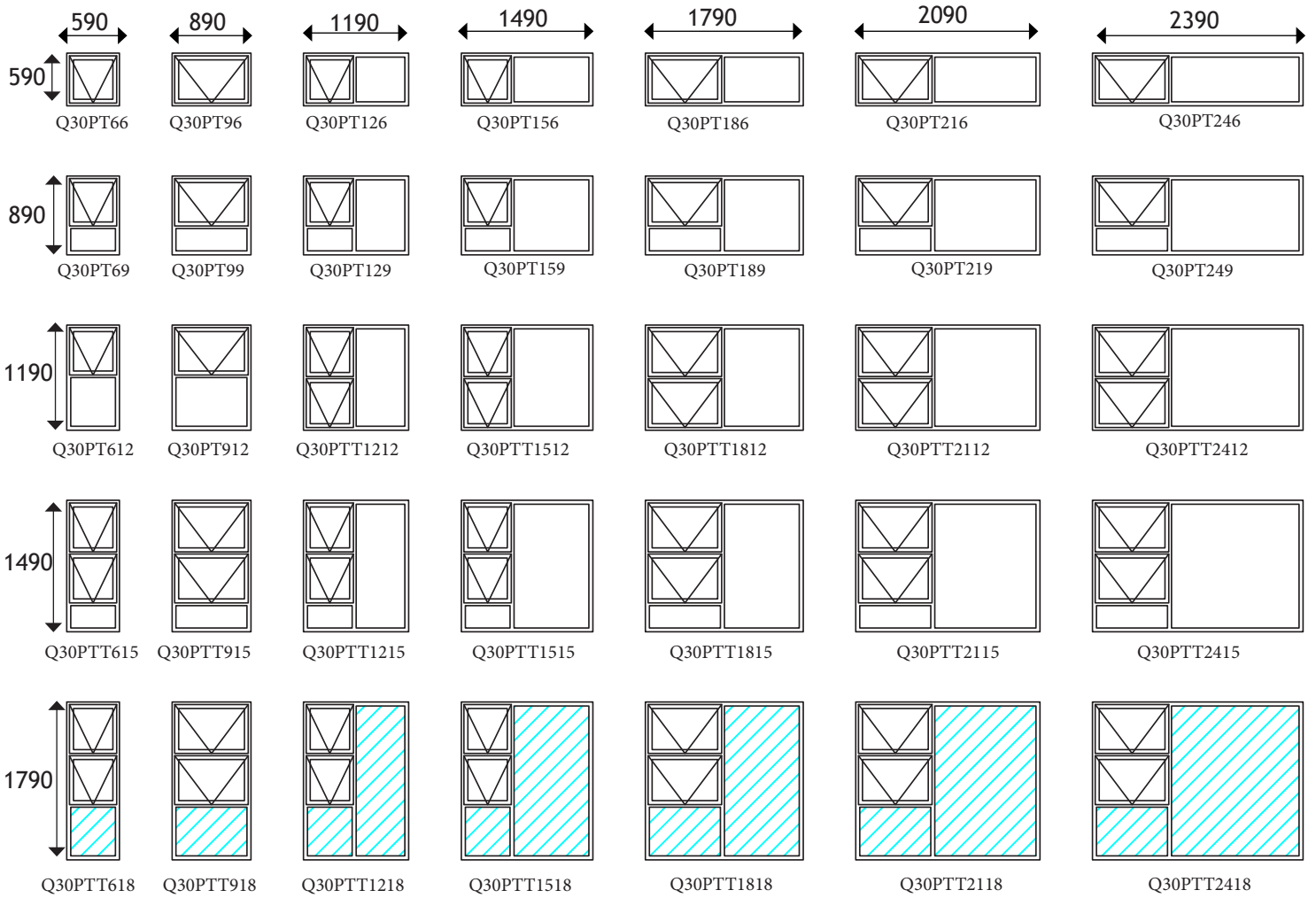


YOSO 1.2 PIV Y4



YOSO 1.2 PIV Y6

# Top Hung Windows Casement 30.5mm



 = Safety Glass 6.38

 = 4mm Float Glass

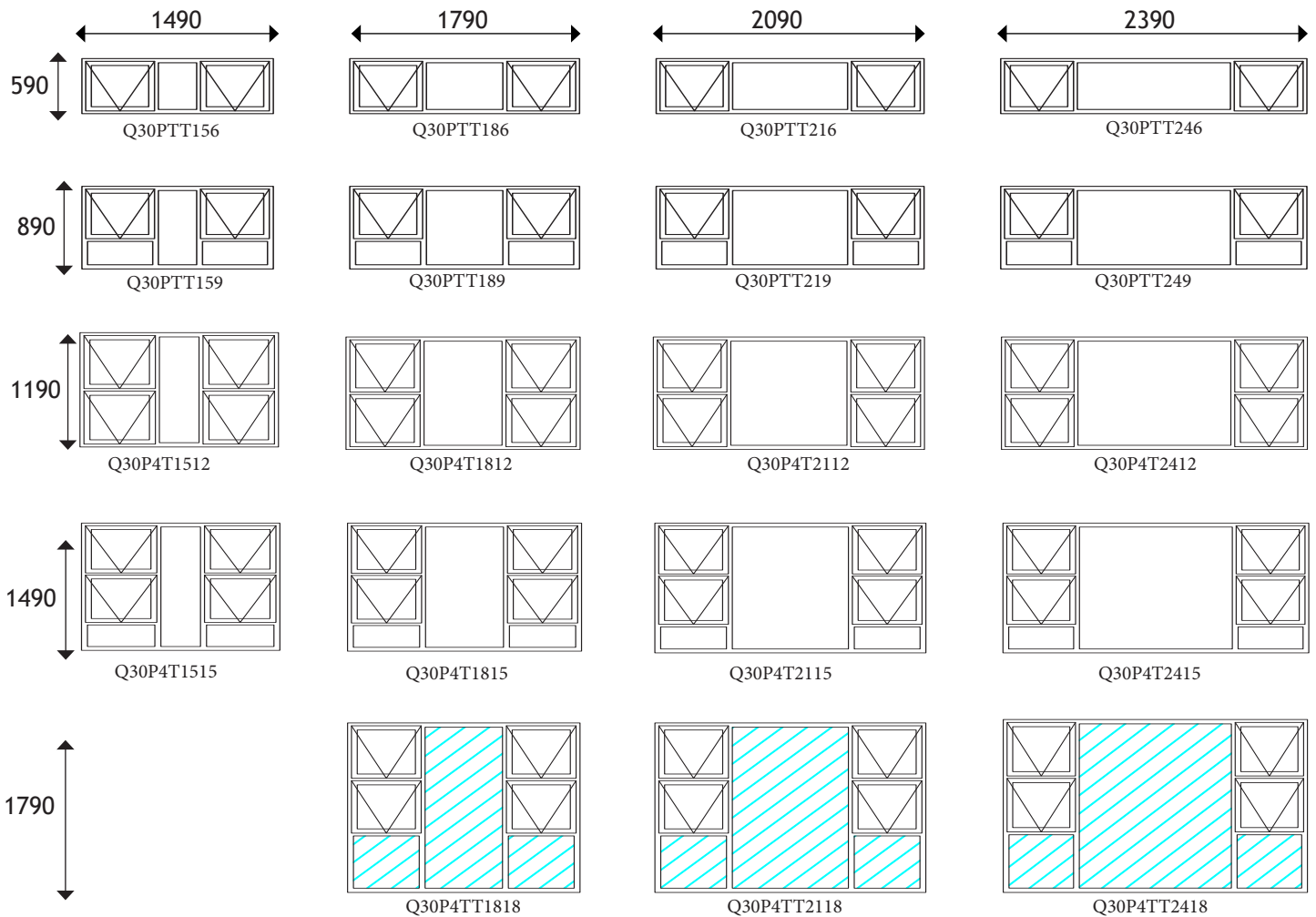
## STANDARD COLOURS



Maximum sash size:  
Width: 890mm  
Height: 590mm



# Top Hung Windows Casement 30.5mm















































 = Safety Glass 6.38

 = 4mm Float Glass


## Information & Special Features:


- High quality low cost single glazed window.
- For use in residential or architectural projects
- Project top hung sashes on concealed friction stays, all sashes are fitted with draught seal to prevent water and air infiltration.
- Window corner are mechanically crimped and sealed.
- All windows come complete with fixing lugs, handles, stainless steel screws.
- VAGA 30.5 Casement windows are manufactured to N part glazing regulations and are fitted with high rise mullions where required.
- All hardware to coastal specifications of 304 stainless steel quality.
- Windows available in a PT (one sash) - PTT (two sash)  
-P4TT (4 sashes) configuration.
- Viewed from the outside all sashes as a standard on the left hand side, if sashes are required on the right hand this needs to be specified.


# Top Hung Windows Casement 38mm


290	590  PT63	890  PT93	1190  PT123L/R	1490  PT153L/R	1790  PT183L/R	1790  PTT183
590	 PT66	 PT96	 PT126L/R	 PT156L/R	 PT186L/R	 PTT186
890	 PT69	 PT99	 PT129L/R	 PT159L/R	 PT189L/R	 PTT189
1190	 PT612	 PT912	 PT1212L/R	 PT1512L/R	 PT1812L/R	 PTT1812
1190	 PTT612	 PTT912	 PTT1212L/R	 PTT1512L/R	 PTT1812L/R	 P4T1812
1490	 PTT615	 PTT915	 PTT1215L/R	 PTT1515L/R	 PTT1815L/R	 P4T1815
1790	 PTT618	 PTT918	 PTT1218L/R	 PTT1518L/R	 PTT1818L/R	 P4T1818
2090	 PTT621	 PTT921				


**Standard Colours**


  
BRONZE


  
WHITE

  
BLACK

  
SILVER

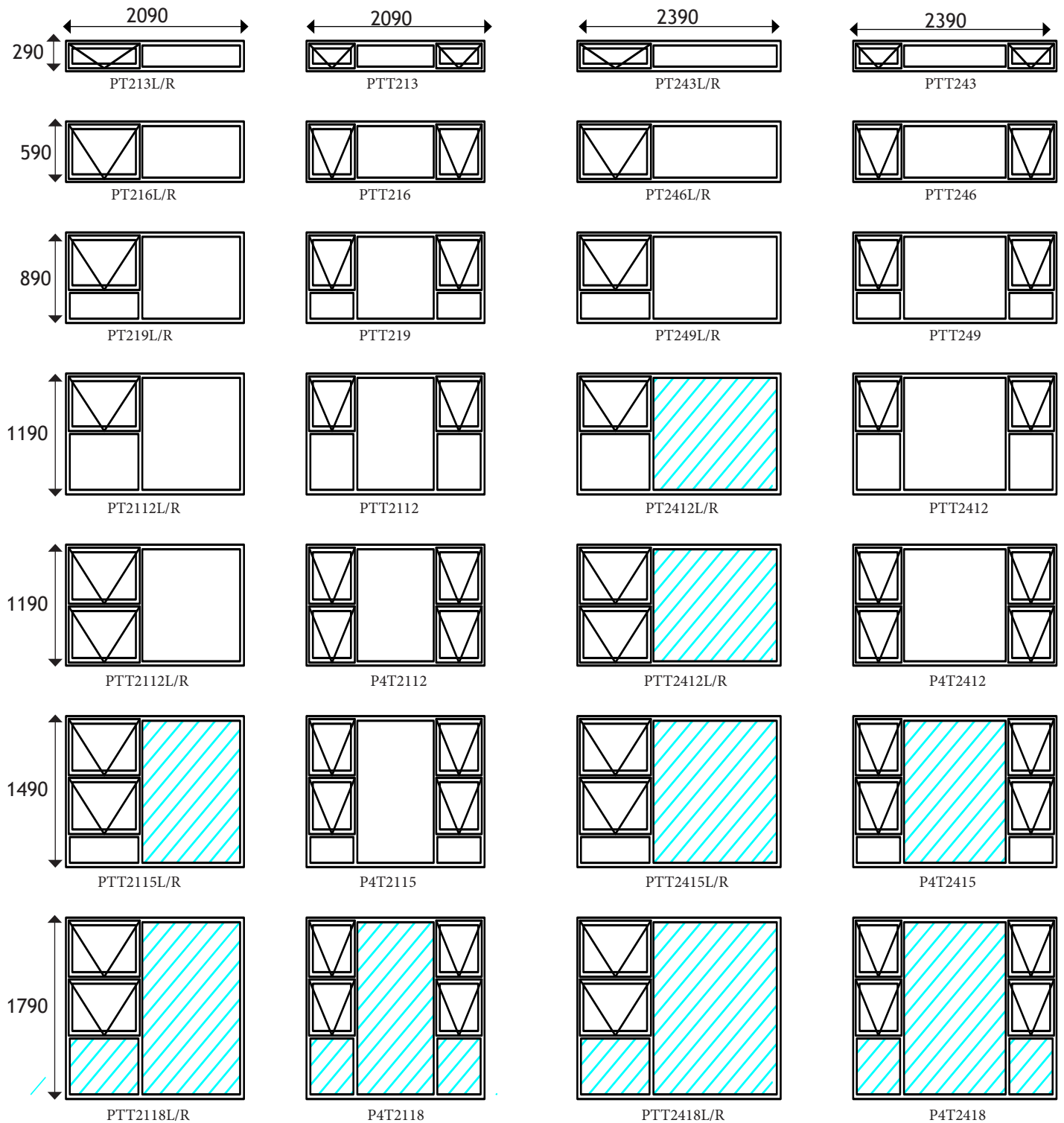
  
CHARCOAL


= Safety Glass 6.38


= 4mm Float Glass



# Top Hung Windows Casement 38mm

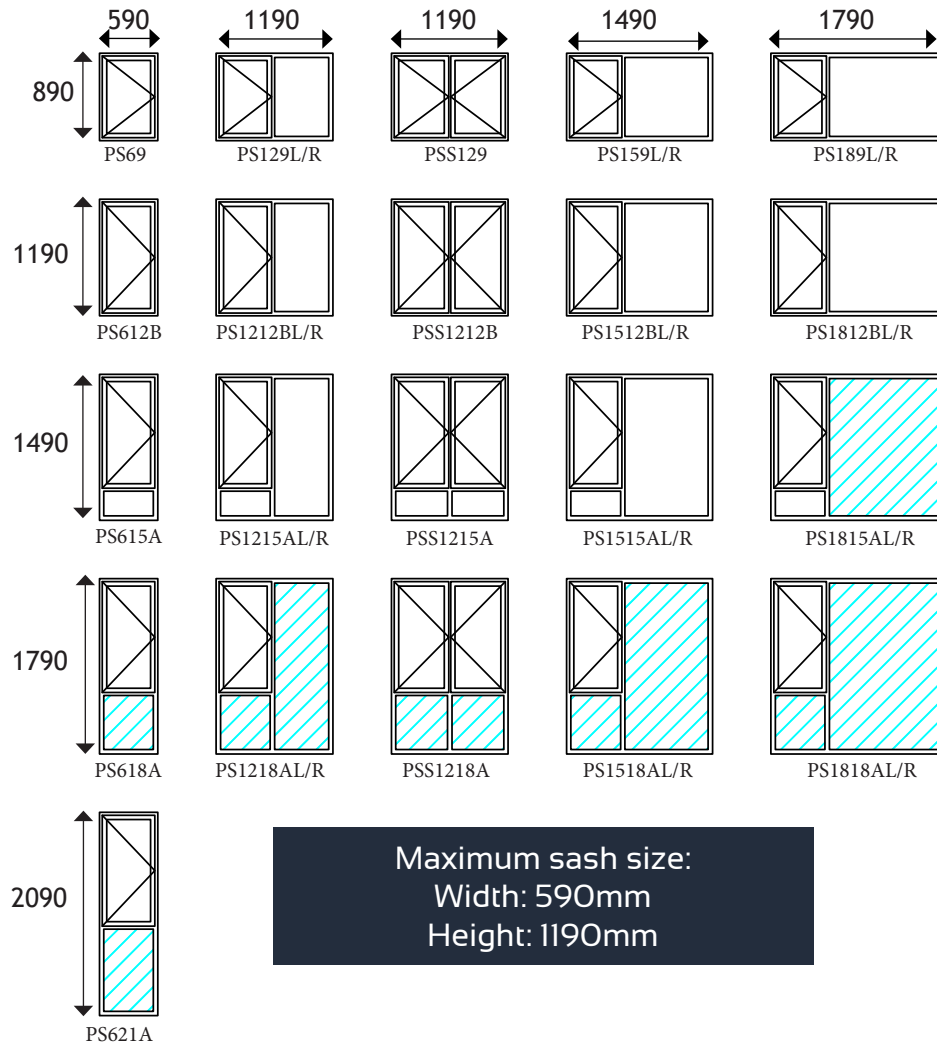


## Information & Special Features:

- High quality durable double or single glazed window.
- For use in residential or architectural projects
- Project top hung sashes on concealed friction stays, all sashes are fitted with draught seal to prevent water and air infiltration.
- Window corner are mechanically crimped and sealed.
- All windows come complete with fixing lugs, handles, stainless steel screws.
- VAGA 38mm Casement windows are manufactured to N part glazing regulations and are fitted with high rise mullions where required.
- All hardware to coastal specifications of 304 stainless steel quality.
- Windows available in a PT (one sash) - PTT (two sash) -P4TT (4 sashes) configuration.
- Viewed from the outside all vents as a standard on the left hand side, if vents are required on the right hand this needs to be specified.

# Sidehung Windows Casement 38mm

## Standard Colours



= Safety Glass 6.38

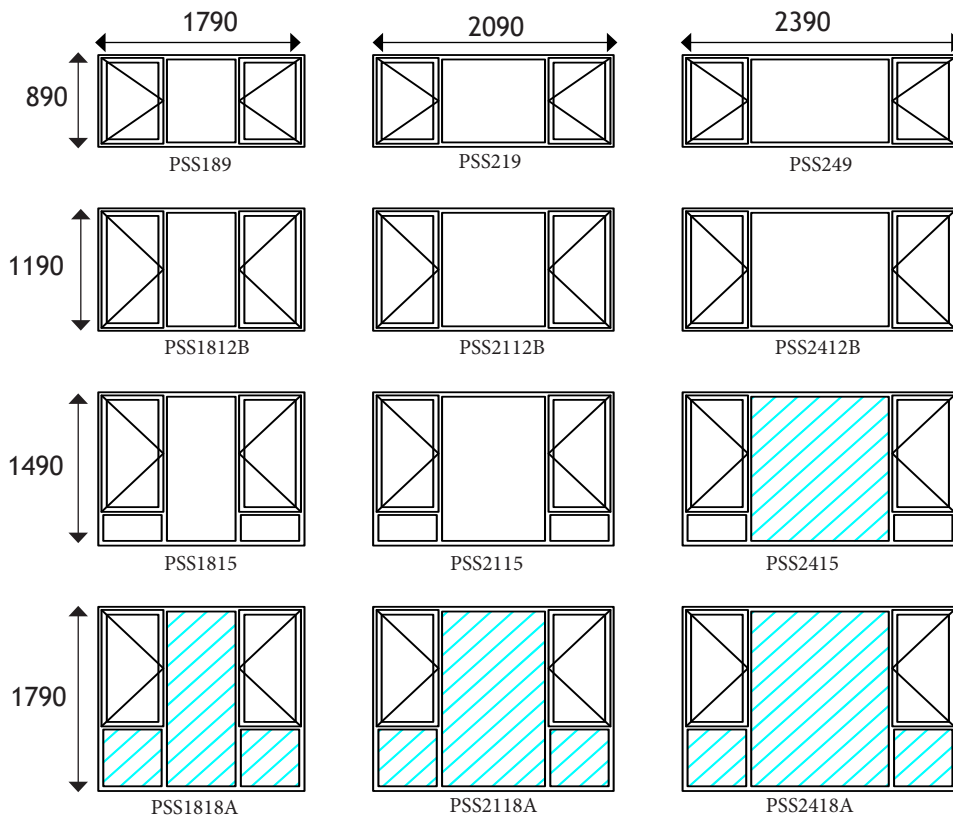
= 4mm Float Glass





# Sidehung Windows Casement 38mm

## Standard Colours



Maximum sash size:  
Width: 590mm  
Height: 1190mm

 = Safety Glass 6.38

 = 4mm Float Glass

## Information & Special Features:

- High quality durable double or single glazed window.
  - For use in residential or architectural projects
  - Sidehung sashes are fitted with draught seal to prevent water and air infiltration.
  - Window corner are mechanically crimped and sealed.
  - All windows come complete with fixing lugs, handles, stainless steel screws.
  - VAGA 38mm Casement windows are manufactured to N part glazing regulations and are fitted with high rise mullions where required.
  - All hardware to coastal specifications of 304 stainless steel quality.
  - Windows available in a PS (one sash) - PSS (two sash)
- Viewed from the outside all sashes as a standard on the left hand side, if sashes are required on the right hand this needs to be specified.

# Window & Glazing Terminology

## **Casement window**

Term used to describe a conventional window, with a sash that is side or top hinged. Casement windows open outwards.

## **Sash**

Rail, stile and glass components joined together that form the venting capability of a window.

## **Sill/ Cill**

Horizontal member that forms the bottom of a window or door frame.

## **Single glazing**

Window or door with a single glass lite. Our Casement 30.5 window has single glazing with 4mm float translucent glass.

## **Double glazing unit**

A combination consisting of two glass panes enclosing a hermetically-sealed air space. This option is available on all our aluminium products except 30.5 Casement windows.

## **Float Glass/ Annealed glass**

A term of perfectly flat, clear glass. A more affordable glazing option commonly used with the 30.5 Casement single glazed windows.

## **Translucent**

Allowing glass to pass through diffusely.

## **Obscure Glass**

Any type of glass with uneven surfaces which offers light diffusion and privacy. Commonly used in bathrooms.

## **Tinting Options**

Tinting changes the color of the window and can increase visual privacy. The primary uses for tinted glass are reducing glare from the bright outdoors and reducing the amount of solar energy transmitted through the glass. There are many colour options available like clear, cool grey and many more, please discuss with your sales consultant to see samples of available options.

## **Sand-blasted glass**

This type of glass is produced by spraying sand at high velocities over the surface of the glass.

## **Safety Glass**

Glass which must have passed an impact test and either must not break or must break safely. Types of safety glass include laminated or toughened safety glass.

## **Laminated Glass**

Type of safety glass used for commercial and residential purposes. A combination of two or more glass sheets with one or more interlayers of plastic (PVB) or resin. In case of breakage, the interlayer holds the fragments together and continues to provide resistance to the passage of persons or objects. Commonly used for windshields, skylights and architectural applications.

Laminated 6.38mm glass is a safe, affordable glazing option for your home's fenestration, it also helps with sound insulation and provides some protection for your furniture and curtains due to EVA film used between sheets to block UV rays from the sun.

## **Toughened Glass**

Toughened glass is two or more times stronger than annealed glass, when broken it shatters into tiny small fragments which prevent major injuries. Toughened glass is usually used for unframed assembling, like frameless glass doors or when large windows that reach floor level.



# Window & Glazing Terminology

## Low-E Glass

Low-emission glass (Low-E) is a clear glass, which has a microscopically-thin coating of metal oxide. Applied to one side this allows the sun's heat and light to pass through the glass into the building at the same time it blocks heat from leaving the room, reducing the heat loss considerably.

## U-value

This is a measure of the rate of heat loss of a building component. It is expressed as watts per square metre, per degree Kelvin, W/m<sup>2</sup>K.

## Air infiltration

Industry test that measures the amount of air leakage through a window or door (the lower the number the better)

## More on Double Glazing



## Advantages

### Comfort

Having double glazing will keep the heat out in summer, and keep the warmth in winter. Double glazing will keep the temperature in your home more stable.

### A Quieter Home

Double glazing can dramatically reduce noise pollution like barking dogs, or noisy neighbours or aircraft noise.

### Lower Energy Costs

Windows can severely impact your homes heating and cooling load. Up to 40% of a homes heating can be lost and 87% gained through the windows.

### Security

The majority of burglaries gain entry through windows and doors. Double glazing may deter would-be burglars.

**Enhance Your Homes Value & Reduce your carbon footprint.**

## Installation of glass panes will be inspected in accordance with SANS 10400-Part N:2012 Edition 3.1

### 1. EXTERNAL VERTICAL GLAZING - STRUCTURES NOT EXCEEDING 10M IN HEIGHT

SANS 10400-N:2012 Edition 3.1 requires glazing (framing and glazing materials) to comply with all the requirements of SANS 613 in respect of wind and impact loads, water penetration and air leakage. Upon completion of project provide appropriate Performance Test Certificate confirming compliance with all requirements of SANS 613.

Vertical Glazing supported all round							
Maximum Pane sizes sq.m							
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	0.75	1.5	2.1	3.2	4.6	6.0	6.0
Patterned Annelaed & Wired Glass	-	0.75	1.2	1.9	2.6	3.4	-
Laminated Annealed Safety Glass	-	-	-	2.9	4.3	5.7	5.7
Toughened Safety Glass	-	1.9	3.0	4.5	8.0	8.0	8.0

Vertical Glazing - two opposite side supported							
Maximum Span between support in m							
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	-	0.4	0.5	0.6	0.85	1.0	1.3
Patterned Annelaed & Wired Glass	-	0.25	0.3	0.35	0.5	0.6	-
Laminated Annealed Safety Glass	-	-	-	0.55	0.8	0.95	1.2
Toughened Safety Glass	-	0.55	0.7	0.85	1.15	1.3	1.8

### 2. INTERNAL VERTICAL GLAZING- SINGLE GLAZING

Vertical Glazing supported all round							
Maximum Pane sizes sq.m							
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	0.75	1.5	2.1	3.2	4.6	6.0	6.0
Patterned Annelaed & Wired Glass	-	0.75	1.2	1.9	2.6	3.4	-
Laminated Annealed Safety Glass	-	-	-	4.1	6.0	7.2	7.2
Toughened Safety Glass	-	3.0	4.2	6.4	9.2	9.2	9.2

Vertical Glazing - two opposite sideS supported							
Maximum Span between support in m							
Nominal Glass Thickness (mm)	3	4	5	6	8	10	12
Monolithic Annealed Glass	-	0.65	0.8	0.95	1.3	1.55	2.0
Patterned Annelaed & Wired Glass	-	0.4	0.48	0.57	0.78	0.9	-
Laminated Annealed Safety Glass	-	-	-	0.9	1.25	1.5	1.95
Toughened Safety Glass	-	0.9	1.1	1.3	1.75	2.0	2.7

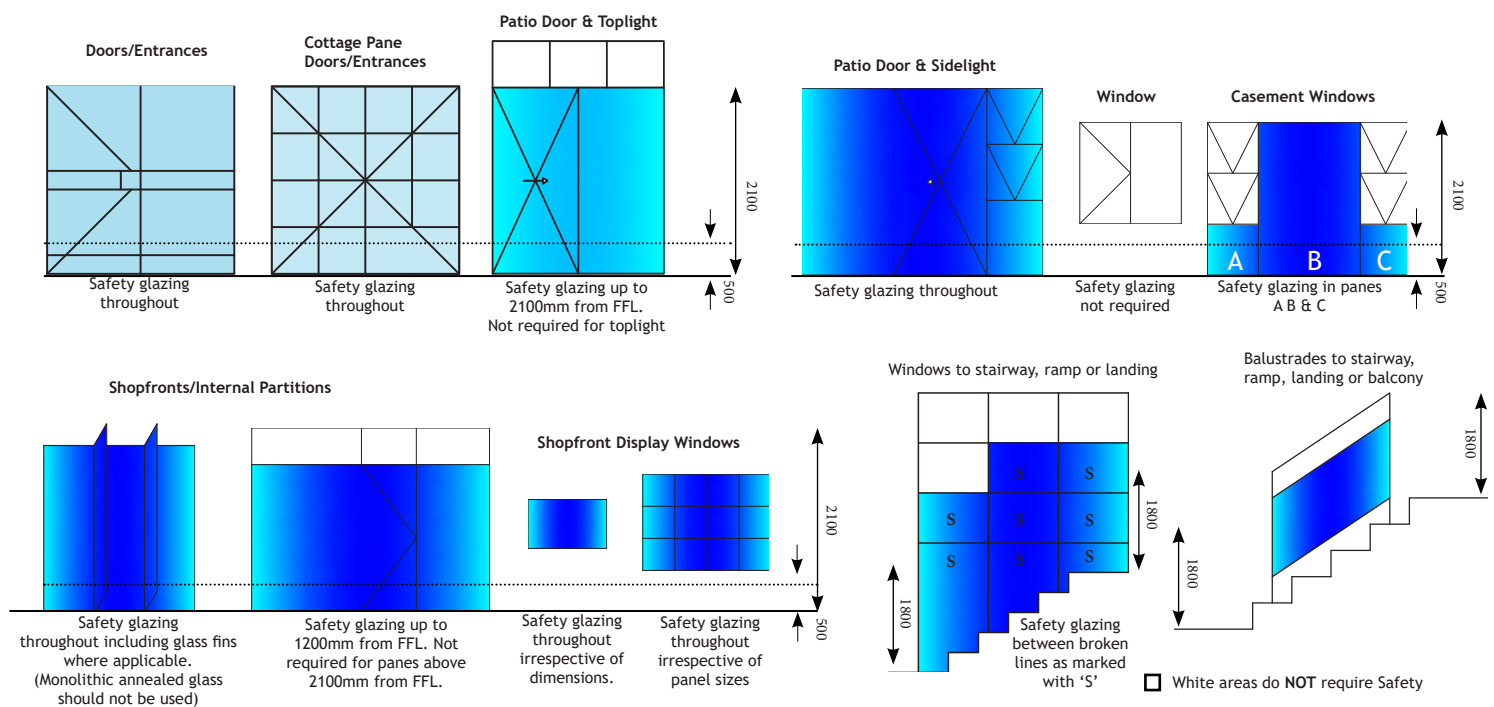
### 3. VERTICAL DOUBLE GLAZING (SIGU) - External (up to 3 storey) and Internal applications

Double Glazing ( SIGU) all round supported only							
Type of glass	Maximum pane area in sq.m						
	Nominal glass thickness weakest light						
	3	4	5	6	8	10	12
Monolithic annealed glass	1.00	2.00	2.80	4.27	6.13	8.00	8.00
Patterned annealed & wired glass	-	1.00	1.60	2.53	3.47	4.53	-
Laminated annealed safety glass	-	-	-	3.87	5.73	7.60	7.60
Toughened safety glass	-	2.53	4.00	6.00	10.67	1.67	10.67

Deviations from the above must be approved by Competent Person (Glazing) including applications in excess of three storeys. Two-edge supported SIGU (double glazing) must be done in consultation with the manufacturer of the SIGU and approved by Competent person (Glazing).



- 1.1 SAFETY GLAZING (Obtain SAGGA Certificate of Conformance confirming compliance).
- 1.2 The performance of safety glazing material shall be in accordance with the requirements of SANS 1263-1 and the individual panes of safety glazing material shall be permanently marked by the installer in such a manner that the markings are visible after installation.
- 1.3 Safety glazing materials that comply with SANS 1263-1 shall be used where.
- doors and sidelights form part of any entrance up to 2100mm from finished floor level;
  - a window has a sill height of less than 500mm from the floor or extreme ground level;
  - a window has a sill height of less than 800mm from the floor or external ground level without any permanent barrier that prevents persons from coming into contact with the glass panel, and is so placed that persons are likely, on normal traffic routes, to move directly towards such window.
- NOTE: A barrier could be any feature i.e. a heavy bar across a window or a flower box placed in front of the window, that will provide a physical or visual barrier between the glass and person.**
- a bath enclosure or shower cubicle is glazed, or where glazing occurs immediately above and within a distance of 1800mm horizontally or vertically from a bath or shower.
  - glazing is used in any shop front display window within 2100mm from finished floor level;
  - glazing is used in any wall or balustrade to (immediately adjacent to) a stairway, ramp, landing, pathway, patio, veranda or balcony;
  - glazing is used within 1800mm of the pitch line of a stairway or the surface of a ramp, landing, pathway, patio, veranda or balcony;
  - glazing applications are sloped or horizontal;
  - a mirror is installed as facing to a cupboard door less than 800mm above the floor level and there is no solid backing.
  - glazing is used around areas such as swimming pools and ice rinks; and
  - glazing is used in internal partitions, within 2100mm of floor level.
- 1.4 All glazing for occupancy or building classification is A3 (places of instruction), E1 (place of detention), E2 (hospital), E3 (other institutional (residential buildings) and H2 (dormitory), where such is associated with a building of occupancy classification A3, E1, E2 or E3 (see SANS 10400-A) shall be safety glazing material that complies with requirements of SANS 1263-1.
- 1.5 Glass in balustrades shall be toughened safety glass unless rigidly supported on all sides. Glazing material in balustrades is subject to impact and line loads determined in accordance within the requirements of SANS 10160-2.
- 1.6 Glass in horizontal or sloping applications shall be laminated safety glass or toughened safety glass. Toughened safety glass shall only be used where the individual panes are framed on all sides.
- 1.7 Wired glass having two-edge support may be used in vertical glazing sawtooth roofs.
- 1.8 The thickness and maximum panel dimensions of frameless bath and shower enclosures shall be as given in table below.



## General

Glazing installations not covered by or deviating from the items above such as, but not limited to, external glazing in structures in excess of 10m in height, overhead or sloped glazing, glass flooring, three and one edge supported glass, toughened glass assemblies and entrances, glass for balustrading supported by clamps etc. must be signed off and approved in writing by Competent Person (Glazing) or Structures. the SAGGA Certificate of Conformance does NOT cover water penetration, air leakage and wind load capacity and framing.

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