

## METRO SERIES

### MAIN FEATURES

- A stylish and versatile range of heavy-duty windows and doors based on a unified and contemporary design approach.
- Occupies an intermediate position between the FIRST<sup>TM</sup> residential suite and the high-performance APL ARCHITECTURAL SERIES.
- Suitable for residential and architectural applications in demanding environments.
- Frames and profiles feature clean, flat surfaces for a modern appearance.
- The product portfolio comprises sliding doors, hinged and bi-fold doors and awning, casement and sliding windows, all designed to reflect a coordinated aesthetic.
- Sliding doors and awning / casement windows are suitable in 'Specific Design' environments.
- Sliding doors can have an opening window in the moving panel when the flush-line Piatto sash lock is used.
- Doors are suitable to a height of 2.4 metres in most wind exposures.
- Sliding doors have a clean, uncluttered sill and track, are bottom rolling for ease of movement in larger sizes and are not sensitive to lintel drop.
- The bi-fold door can be supplied with a 'lay-back' option in some configurations where the panels swing back against adjoining walls for minimal projection on to decks.
- Awning and casement sashes have a flush, non-facing design, though a facing sash option is available.
- Double glazing up to a maximum thickness of 24mm is possible on doors and to 26mm on awning and casement windows.

### DOORS

**Hinged Doors** have 45mm-thick panels and are available in open-out and open-in formats. The open-out frame (04451) and open-in frame (04450) have flat faces and can be coupled with sidelights and overlights. French doors have rebated meeting stiles for a clean, flush look.

**Sliding Doors** slide on an external track with fixed sidelight. The (02900) frame is used for single sliding panels and the (02901) frame for stacking sliders. An alternative (02918) stacker frame is available when a flush frame is required. Stiffening boxes on interlocker stiles and mullions are flush in the closed position. Externally sliding doors optimise weathertightness and ensure suitability in a wide range of demanding locations. (Note that the external track means that outward opening windows cannot be placed in adjoining sidelights, but can be placed in the sliding panel when the flush Piatto sash lock is used in conjunction with a vision rail. Opening sashes can also be included or coupled sidelights.)

**Bi-fold Doors** are bottom rolling with an in-frame track. A lay-back option is available for certain configurations - 2p, 2+2 and 2+1 - where the open panels fold back against an adjoining wall for an unobstructed deck.

### GLAZING BEADS

For double glazing, beads lie near flush with the glass.

### FINISH / COLOUR

**Powder Coated** in a wide range of colours.

**Anodised** silver and bronze as standard, 12 micron thickness. Other colours and thicknesses are available.

## METRO SERIES

### GLASS

Double glazing to a maximum of 24mm thickness on doors can be used. Glass thickness and type to be used is covered by the Human Impact Safety requirements of NZS4223.

### PERFORMANCE

Complies with NZS 4211: 2008 Performance of Windows. Certificates can be provided on request. METRO SERIES sliding doors are suitable for 'Specific Design' applications provided they do not exceed recommended size guidelines (open-in hinged door for 'very high' wind zones).

A guarantee for all METRO SERIES products is provided under normal conditions of use against failure of materials and workmanship for five years from the date of practical completion.

### SIZES

**Sliding doors** are suitable for 'Specific Design' applications in wind pressures of 1.3 kPa serviceability provided they do not exceed recommended size guidelines. A maximum panel size of 2400mm high x 2000mm wide is recommended in 'very high' wind zones. Larger heights or widths may be possible with different aspect ratios or in lower wind zones. Sliding door rollers are rated to 75kg each(150kg panel weight), allowing 24mm double glazing if desired.

**Hinged doors (open-out)** are suitable for up to 'very high' wind zones provided they do not exceed recommended size guidelines. A recommended maximum size of 2400mm high x 900mm wide applies in 'very high' wind zones. Taller open-out panels are likely to perform satisfactorily in lower wind zones. Open-in hinged doors are suitable in wind pressures of 'very high' wind zones at heights of 2400mm.

**Bi-fold doors** are suitable in up to 'very high' wind zones at maximums of 2400mm high and 900mm width per panel.

For larger sizes consider using the APL ARCHITECTURAL SERIES.

### HARDWARE

For hinged doors the Miro™, Urbo™ or Icon stainless steel lever lock is available with key or interior snib.

For sliding doors the surface mounted Miro™ Endeavour lock or Miro™ 'D' handle (choice of small or large) with morticed one-point hook lock can be used or the Icon stainless steel 'D' handle or flush pull with morticed one-point hook lock. An Urbo™ handle is also available. The flush line Piatto window fastener can be used in opening windows in sliding panels.

Bi-fold doors have a swivel operator (Miro™, Urbo™ or Icon stainless steel) with locking pins at head and sill. A 'D' handle / hinge is also available for overheight doors.