

### MAIN FEATURES

- A thermally efficient range of windows and doors suitable for larger formats in residential and architectural applications
- Comply with NZBC clause H1 Energy Efficiency (all climate zones) when used in conjunction with high performing Low-E double glazing
- Thermal breaks included in all products - fixed, awning and casement windows, sliding, stacking and bi-folding windows and doors, and hinged and French doors
- Maximum glass thickness of 44mm IGU allows for optional triple glazing
- Frames are based on platform widths of either 44mm or 56mm depending on the glazing selection (hinged and bi-folds are available only in 56mm system).
- Metro Series ThermalHEART® products can have a different colour on the interior and exterior faces as an optional choice
- Doors are generally suitable to heights of 2.7m in all wind zones
- For larger format products outside the Metro Series size guidelines consider using APL Architectural Series ThermalHEART®.

### DOORS

**Hinged Doors** have 56mm-thick panels and frames (no 44mm option). They are available in open-out and open-in formats. The open-out frame and open-in frame have flat faces and can be coupled with sidelights and overlights. French doors have flush meeting stiles for a clean look. Rail extenders are available for a deeper bottom rail. For thermally efficient formal entrance doors the thermally improved Axis range is available. Cedar panels can also be used in conjunction with the ThermalHEART® frame.

**Bi-fold Doors** are available in the 56mm system and are bottom rolling with an in-frame track.

**Sliding Doors** have an external track and are available in the 44mm and 56mm systems. The sliding door frames have two or three thermal breaks depending on the frame width and stacking configuration. Interlocker stiles and mullions are flush in the closed position. Stiffening boxes project externally. Overlights can be included. Corner sliders (90° internal and external corners ) are available with no corner post.

### GLAZING BEADS

Metro Series ThermalHEART® doors use square beads.

### FINISH / COLOUR

**Powder coated** in a wide range of colours. Two-tone colour schemes are possible with one colour chosen for the interior and another for the exterior. This dual colour approach is made possible by the composite construction of ThermalHEART® profiles. In two-tone frames the polyamide thermal break will be seen in its natural black state when windows and doors are opened. In single-colour powder coated product the thermal break may be painted the same colour as the aluminium

**Anodised** silver and bronze as standard in 12 micron thickness. Other colours and thicknesses are available. In anodised product the thermal break appears in natural black.

### GLASS

Double glazed units of a minimum 24mm thickness and a maximum 32mm can be used with the 44mm frame. With the 56mm frame, a minimum insulated glass unit of 32mm thickness is possible, with a maximum of 44mm, allowing triple glazing. Glass thickness and type to be used is covered by the Human Impact Safety requirements of NZS4223.

### PERFORMANCE

Complies with NZS 4211: 1985 Performance of Windows.

A guarantee for all Metro ThermalHEART® windows is provided under normal conditions of use against failure of materials and workmanship for five years from the date of practical completion.

### SIZES

**For Sliding Doors** maximum panel size of 2700mm high x 1500mm wide is recommended in Extra 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 100kg each, allowing double glazed doors of maximum 200kg weight.

**Hinged Doors** are suitable for Extra High wind zones with a maximum size recommendation of 2700mm high x 900mm wide. Larger heights or widths may be possible with different aspect ratios or in lower wind zones.

**Bi-fold Doors** are suitable in up to Extra High wind zones at maximums of 2700mm high x 900mm wide per panel.

### HARDWARE

For hinged doors a range of lever locks are available including the Miro™, Urbo™, Icon (stainless steel) and Elemental options with key or interior snib. French doors can have a lever handle on both panels (activating two-point locking at top and bottom) or a lever lock on the active panel and flush bolts in the leading edge of the lazy panel.

For sliding doors the surface mounted Albany lock is available as well as Miro™, Urbo, Icon and Elemental pull handles with separately installed lock or turn knobs.

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