ALTHERM WINDOW SYSTEMS

METRO SERIES WITH THERMAL HEART™

DATA SHEET

MAIN FEATURES

- **A thermally efficient range of windows and doors for residential and architectural applications.**
- **Ideal for those jobs where minimising the transfer of cold and reducing condensation are priorities.**
- **All Thermal Heart™ profiles include an insulator or 'thermal break' made from glass fibre-reinforced nylon (polyamide) between the aluminium interior and exterior.**
- **Designed to be used in conjunction with double glazing in order to ensure minimal transfer of cold, and formation of condensation.**
- **Glass panel thickness of 32mm is possible, thus allowing for IGU's with interior pleated or Venetian blinds.**
- **Ideal for those projects where conformity with the energy efficiency requirements of NZ Building Code Clause H1 is a design difficulty issue.**
- **Jointing process for window and door profiles ensures optimum straightness and rigidity.**
- **Frames are based on a large 44mm platform ensuring suitability for a wide range of residential and architectural projects.**
- **Two-tone colour scheme available as an option - one colour for the interior and another for the exterior.**
- **Frames have flat faces for a clean, contemporary look.**
- **Sliding doors and hinged doors are generally suitable to heights of 2.4m in 'very high' wind zones while bi-fold doors will be suitable to heights of 2.2m.**

DOORS

Hinged Doors have 44mm-thick panels and 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 rebated meeting stiles for a clean, flush look. For thermally efficient formal entrance doors the thermally improved Axis range is available. Cedar panels can also be used in conjunction with the Thermal Heart frame.

Bi-fold Windows 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.

Sliding Doors have 'internal track' and 'external track' options. With internal tacks the (92230) frame is used for single sliding panels and the (92240) frame for stacking sliders. The stacker slider has two thermal breaks rather than the usual single break because of the wide frame depth. Interlocker stiles and mullions are flush in the closed position. Stiffening boxes project externally. Overlights can be included on 2-panel and 4-panel sliders (not stacker doors). For external tracks the (93310) frame is used for single sliding panels and the (93320) frame for stacking sliders.

GLAZING BEADS

Metro Thermal Heart windows use flush or square edged beads with double glazing. Two single glazed beads are available if required.

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 Thermal Heart profiles. In two-tone frames the polyamide thermal break will be seen in its natural black state when doors are opened. In single-colour powder coated product the thermal break may be painted the same colour as the aluminium

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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. Single glazing up to 12mm is possible. 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. Some door configurations and sizes may be suitable in some 'specific design' environments - consult APL Technical Advisory Service for further information.

A guarantee for all Metro Thermal Heart doors 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 2400mm high x 1200mm 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 150kg each, allowing double glazed doors of maximum 300kg weight.

Hinged Doors are suitable for 'very high' wind zones with a maximum size recommendation of 2400mm high x 900mm wide.provided they do not exceed recommended size guidelines. A recommended maximum size of 2400mm high x 900mm wide applies in 'very high' wind zones. Larger heights or widths may be possible with different aspect ratios or in lower wind zones.

Bi-fold Doors are suitable in up to 'very high' wind zones at maximums of 2200mm high x 900mm wide per panel.

HARDWARE

For hinged doors a range of lever locks are available including the Miro™, Urbo™ or Icon (stainless steel) 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.

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.