

## RESIDENTIAL THERMAL HEART™

### MAIN FEATURES

- A thermally efficient range of windows and doors for residential purposes.
- Ideal for those jobs where minimising the transfer of cold and reducing condensation are priorities.
- The Thermal Heart™ insulator or 'thermal break' is made from glass fibre-reinforced nylon (polyamide) and is placed between the aluminium interior and exterior.
- Designed to be used in conjunction with double glazing for a fully effective barrier system.
- Standard glass panel thickness of 24mm.
- 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 46mm platform ensuring suitability for a wide range of residential projects.
- Condensation channels are not required in frame designs.
- Doors are generally suitable to heights of 2.1m in 'very high' wind zones.

### WINDOWS

**Awning / Casement / Fixed Light Windows** use the facing frame (65000). A facing sash (65050) is used as standard. Three mullion / transoms are offered (65100), (65110), (65120), with externally projecting stiffening fins. Three corner posts cater for plane changes (65140 / 65150 / 65160-65170).

**Sliding Windows** use the sliding door system, except the narrower rail (65460) is used at both top and bottom. The small interlocker mullion is also generally used. The interlocker stiles are flush in the closed position. An overlight transom (65440) allows overlights in association with sliding panels.

**Bi-fold Windows** use the bi-fold door system, which is bottom rolling with an in-frame track.

### GLAZING BEADS

FIRST Thermal Heart™ windows use sloped or square beads with double glazing.

### FINISH / COLOUR

**Powder coated** in a wide range of colours. The thermal break is 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 standard 24mm thickness are generally supplied. 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. A guarantee for all FIRST Thermal Heart™ windows is provided under normal conditions of use against failure of materials and workmanship for five years from the date of practical completion

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### SIZES

**Awning and casement windows** are capable of a range of sizes, with awnings up to 1400mm high x 1000mm wide and casements up to 1400mm high x 800mm wide recommended. Larger sashes are able to be constructed dependent on the width, height, weight (including glass), hardware and wind zone. Consult your FIRST WINDOWS & DOORS<sup>TM</sup> manufacturer for professional advice on appropriate sized sashes fit for purpose. For larger sizes consider using the Metro Thermal Heart<sup>TM</sup> Series.

**Bi-fold windows** use the bi-fold door system and are therefore capable of tall heights with a maximum width of 900mm per panel

**Sliding windows** have a recommended maximum size of 1800mm high x 1400mm (700mm panel) wide in 'very high' wind zones. If larger panel sizes are required consult your FIRST manufacturer.

### HARDWARE

Window fasteners are available in a range of styles and finishes, including the Miro<sup>TM</sup>, Urbo<sup>TM</sup> and Icon<sup>TM</sup> (stainless steel) wedgeless options.

For sliding windows the surface mounted Albany pull is often used.

Bi-fold windows have a swivel operator choices - Miro<sup>TM</sup>, Urbo<sup>TM</sup> or Icon<sup>TM</sup> stainless steel with locking pins at head and sill. A 'D' handle / hinge is also available for tall windows.