

## MAIN FEATURES

- For residential use
- Awning windows are top hung, and offer a degree of weather cover when open
- Casement windows are side hung and direct breezes inside
- A flat-face frame for a clean, contemporary look
- Bead-glazed or pocket-glazed options with possible maximum IGU thickness of 24mm
- No grooves or die lines on sashes and frames for a clean, contemporary appearance
- Condensation collected in a channel
- French casements available
- Three passive ventilation options – Aerovent, Sashvent and Ventient with windows closed
- Two-point espagnolette locking available
- Three frame options - standard frame, replacement frame and chair frame.

## FRAME TYPES

**Standard Frame** with a facing leg to overlap the building cladding.

**Replacement Frame** for installation into existing timber frame rebates.

**Chair Frame** for use in varied applications and block work rebates.

## SASH TYPES

**Pocket Glazed for Double Glazing** IGU thickness 18 - 24mm.

**Pocket Glazing** offers an enhanced level of security as the glass fits into a secure pocket.

**Bead Glazed** for single and double glazing, used when glass thicknesses lie outside the range mentioned above for pocket glazing. It may also be used in casements to assist the accurate placement of glass setting blocks.

**Vented Sash** for single and double glazing. This has a PVC slide allowing trickle ventilation through the bottom rail.

## VENTILATION

Altherm Aerovent passive ventilator able to be fitted at the head of all beaded products. Sashvent allows ventilation through a series of slots in the bottom rail of a sash. Ventient, a naturally automated trickle ventilator, is fitted at the window head.

## MULLIONS AND TRANSOMS

A range of mullions and transoms are available with and without external fins. Fins are necessary to increase the strength of mullions and transoms to cope with higher wind loads. An internal box is also available. 45° and 90° corner posts are also available for box, bay and greenhouse windows. Where interior-projecting box mullions are desired consider using the METRO SERIES or the APL ARCHITECTURAL SERIES.

## GLAZING BEADS

Beads come in three types to cater for different looks and glass thicknesses:

**Flat (or Flush)** where double glazing is used.

**Sloped** as standard for single glazed sashes and fixed lights.

**Square** to achieve a strong, solid look - when single glazing is used.

### **COLONIAL GLAZING BARS**

These come in three bar widths -18mm, 24mm and 28mm. For single glazing the raised bar is adhered to the glass exterior with the matching size flat bar applied to the inside. For double glazing the flat bar must be used both internally and externally.

### **FLASHINGS**

Altherm has a range of standard flashings.

### **CURVING**

Altherm has a range of awning window extrusions that can be curved to suit most requirements.

### **FINISH / COLOUR**

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

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

### **GLASS**

Double glazed units to a maximum of 24mm thickness are possible. Minimum single glazed glass thickness is 4mm. Other glass thicknesses may be used in accordance with NZS4223: Glazing in Buildings. The full range of glass types can be included in this product. For further information consult your local Altherm manufacturer.

### **PERFORMANCE**

Altherm complies with NZS4211:2008 Performance of Windows. Certificates provided on request.

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

### **SIZES**

Sashes 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 Altherm manufacturer for professional advice on appropriate sized sashes fit for purpose.

For larger sizes consider using the METRO SERIES or APL ARCHITECTURAL SERIES.

### **HARDWARE**

Window fasteners are available in a range of styles and finishes.

Friction stays vary according to sash size and weight, and whether windows are awning or casement. Most are in black powder coated aluminium. Some specialised stays are available, including 90° stainless steel casement stays for wide opening.