

# SMARTWOOD™ WINDOWS & DOORS

#### **MAIN FEATURES**

- High specification 'composite' windows and doors with an interior timber cladding for aesthetic appeal and a hard wearing aluminium exterior.
- For architectural and residential applications.
- Aluminium exterior with timber interior cladding. Timber options include cedar, kwila, jarrah, beech, oak, macrocarpa and most other furniture-type timbers.
- Product range comprises:
  - Awning windows
  - Casement windows (including French casement pairs)
  - Bi-fold windows
  - Sliding windows
  - Hinged doors
  - French doors
  - Bi-fold doors
  - Sliding doors
  - Duo sliding doors
- Generous 24mm weather cover on frame.
- A PVC thermal insulator between the aluminium and timber cladding prevents condensation transfer and enhances thermal performance.
- Continuous sight lines are optional across sashes, doors and adjoining fixed lights on all products.
- Secure fixings exist between timber and aluminium faces a clip on system supplemented by invisibly placed fixing screws.

## **DOORS**

All door panels are bead glazed on all sides for maximum 6.38mm single glazing and 24mm double glazing. A special bead is also available to allow the use of 32mm double glazed units featuring the Screenline internal blind system.

**Hinged Door Open Out** box section frame with platform width and overall width of 70mm, with 24mm of weather cover. Door panel is 56mm wide, bead glazed on all sides.

**Hinged Door Open In** box section frame with platform width of 60mm and overall width of 70mm, with 24mm of weather cover. Door panel is 56mm wide, bead glazed on all sides.

**Bi-Fold Door Open Out** box section frame with external roller track. Platform width and overall width of 70mm (excluding roller / guide track), with 24mm of weather cover. Door panel is 56mm wide, bead glazed on all sides.

**Sliding Door** box section frame (panels slide externally). Platform width varies depending on configuration (ie single slider or multi-slider format), with 24mm of weather cover. Door panel is 56mm wide, bead glazed on all sides.

**Sightline Adaptors** box sections, to maintain continuous sight lines between doors and adjoining fixed lights.

# **DOOR FRAME CLEARANCES**

To calculate door trim sizes the following measurements need to be added to desired door panel sizes (calculations allow 5mm packing on all sides):

**Hinged Door Open Out:** + 58mm (i.e. for standard panel height of 1980mm trim height would be 2040mm).



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**Hinged Door Open In:** + 114mm

Bi-Fold Door Open Out (height only): + 62mm.

Sliding Door (height only): +51mm.

# **TOP AND BOTTOM RAILS**

**Hinged / Bi-Fold Door Top** 88mm x 56mm box section, bead glazed.

Hinged / Bi-Fold Door Bottom 142mm x 56mm box section, bead glazed.

**Bottom Rail Extender** (also sightline adaptor for adjoining sidelights) box section, extends rail to overall height of 224mm.

**Sliding Door Top** 88mm x 56mm box section, bead glazed.

**Sliding Door Bottom** 142mm x 56mm box section, bead glazed.

#### **DOOR VISION RAILS**

72mm x 56mm box section (also used as window mullion), bead glazed.

## **DOOR STILES**

**Hinged Door** hinge / lock stile 88mm x 56mm box section, bead glazed.

**French Door** lock rebate meeting stile 104mm x 56mm box section, bead glazed.

**French Door** keeper rebate meeting stile 100 x 56mm box section, bead glazed.

**Bi-Fold Door** hinge / meeting stiles 88mm x 56mm box section, bead glazed.

Sliding Door interlocker stile 92mm x 56mm (excluding stiffening box) bead glazed.

**Sliding Door** meeting stiles and lock stiles 88mm x 56mm bead glazed.

### **COLONIAL GLAZING BARS**

24mm stick-on raised aluminium bar fitted to the outside with timber bar on the inside.

#### **FLASHINGS**

Smartwood has a range of standard flashings.

# **CURVING**

 $\mathsf{FIRST}^{\mathsf{IM}}$  has a range of  $\mathsf{Smartwood}^{\mathsf{IM}}$  door 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 from 24mm to 32mm thick are available; also single glazing 4mm to 12mm. Other glass thicknesses may be used in accordance with NZS 4223: Glazing in Buildings. A special bead is also available to allow the use of 32mm double glazed units featuring the Screenline internal blind system.

The full range of glass types can be included in this product. For further information consult your local Smartwood $^{\text{M}}$  distributor.

### **PERFORMANCE**

Smartwood™ complies with NZS 4211 : 1985 Performance of Windows. Certificates provided on request.



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

#### **SIZES**

**Hinged and French Doors.** For glazed hinged doors a maximum door size of 2100mm high x 900mm wide is recommended in 'high' wind zones. Higher doors may be possible in lower wind zones.

Door size is also dependent on weight - with each hinge rated to a load of 20kg each - and the ability to ensure satisfactory sealing at top and bottom. For overheight doors four-point locking is recommended.

**Bi-Fold Doors.** For open-out bi-fold doors the maximum panel weight is 60kg with a maximum panel height of 2100mm and width of 900mm for 'high' wind zones. Higher doors may be possible in lower wind zones. For even panel configurations (eg. 2-panel, 2 + 2p. etc) a minimum panel width of 650mm is required.

Smartwood bi-fold doors conform to the highest wind rating at this size.

**Sliding Doors.** WANZ minimum standard size for testing under NZS 4211 is 2000mm high x 1200mm wide per sliding panel, 3-panel 2210mm high x 3610mm wide, 4-panel 2210mm high x 4810mm wide. Smartwood sliders conform to the 'very high' wind rating at these sizes. Tests indicate that Smartwood standard sliding doors can be built to a height of 2400mm in 'very high' wind zones in maximum panel widths of 1200mm. Larger panels will be possible in lower wind zones.

### **HARDWARE**

Hinged and French Doors are fitted with Miro™ or Icon lever locksets morticed into the stile. Four-point locking using a lift-up lock is standard. In 3-panel bi-fold door sets the swinging panel also uses a lever lockset.

Purpose made butt hinges are used with three or four per door (depending on panel weight and height).

Parliament hinges are available which allow recessed doors to open a full 180° if preferred.

Flush bolts are fitted unobtrusively in French doors in the leading edge of the 'lazy' door panel. Alternatively the Miro™ or Icon twin bolt lock with symmetrical lever handles can be used in this application.

The Miro™ or Icon bi-fold handle is fitted in the handle stile operating throw rods locking at top and bottom. Available in matt silver plated finish.

Bi-fold doors may be fitted with a D handle.

Sliding door locks are Miro™ or Icon mortice locks with standard or large D handles and separately mounted key cylinders.

Miro™ is available in a standard range of 26 powder coat colours. Icon hardware is in stainless steel.

## FINISH / COLOUR

Generally all exterior hardware for Smartwood™ is supplied in a powder coat finish (except where Icon stainless steel hardware is used). The standard powder coat colour is black however hardware colour matched to the joinery is also available.

For interior hardware the normal finishes are either polished brass or matt silver plating. Powder coat hardware is also available for interior use in a wide range of colours.