



**SOUTHERN STAR
WINDOWS & DOORS**

www.southernstarwindows.com.au

Thermal Star™



The 7-Star Generation of Homes Is Here. Are You Ready?

It's happening. The National Construction Code (NCC) will make a minimum Nationwide House Energy Rating Scheme (NatHERS) score of 7-stars mandatory in the majority of new Australian homes.

The era-defining change will forever alter how our homes are built, with a much greater focus on energy efficiency - especially with glazed windows and doors.

According to the Australian Governments YourHome website, up to **40% of a homes warmth is lost** and **87% of its heat gained** through its windows.

This makes energy efficient windows & doors likely the most important element of achieving 7-star performance in your builds.

For builders, 7-star will be a challenge.

Getting a home to 7-star compliance may involve rethinking:

- Materials
- Layouts
- Orientations
- Construction methods
- Windows and glazed doors

Increased costs will be an unavoidable feature of 7-star energy efficiency ratings.

Key Changes to the NCC:

- The NCC 2022 will increase home energy efficiency requirements.
- A Nationwide Housing Energy Rating Scheme (NatHERS) 7-star rating will become the new minimum for all builds.



Introducing the
Thermal Star™ Range



THERMAL STAR™

ACHIEVE AFFORDABLE 7-STAR PERFORMANCE

Thermal Star™ is our new thermal performance solution designed to help you affordably meet the tightened energy requirements of the NCC 2022.

With an **inline reveal**, **thermally improved frames**, and **unbeatable value**, the Thermal Star™ range of aluminium windows and doors is designed to help you achieve affordable 7-star performance. The Thermal Star Range is also WERS rated and tested.



Energy Efficiency

Superior U_w^* & Solar Heat Gain ** values to help you get to 7-star performance.



Value

Ultimate affordability so you don't need to compromise on your builds or home designs.



Comfort

Outstanding temperature regulation provides an unparalleled level of comfort.

*** U_w Value:** A measurement of how well a building product insulates by measuring heat flow resistance. The lower the U_w -Value the better it performs.

****SHGC Value:** How well a product blocks heat caused by sunlight. Expressed as a number between 0 and 1, a lower SHGC rating will transmit less heat.





Why Choose
Thermal Star™?

WHY CHOOSE THERMAL STAR™?



Superior Uw & SHGC Values

to help you achieve 7-star performance.



Inline Reveal Technology

for optimum thermal control.



Double Glazing As Standard

to maintain first-rate temperature control.



Tested to Australian Conditions

to meet Australian Standard 2047-2014.



Value For Money

for compliance without compromise.



Reduces Condensation

Through consistent climate control.



THERMAL STAR™ PERFORMANCE TEST

To demonstrate the power of the Thermal Star™ range we set up a test.

We compared the NatHERS performance of a single storey display home WITH and WITHOUT Thermal Star™ 150 Series thermally improved aluminium windows and doors.

The houses were as similar as possible in every other respect and were tested in various orientations to comprehensively evaluate the impact of Thermal Star™ range on the NatHERS performance of the home.

Test House Details

House Type: 1 Storey, 4 Bedroom, 2 Bathroom, 231m².

Overshadowing: Calculated using two storey house either side and built on boundary.

Elevated Floor: R4.0 Ceiling batt.

External Wall: R2.5 - R2.7 Wall batt.
R6.0 batt with R2.5 perimeter edge batt.

Roof Colour: Dark.

Location/Climate Zone: Greater Melbourne/Zone 6 (Mild Temperate Climate).



THERMAL STAR™ PERFORMANCE TEST

Without Thermal Star™

| House Orientation | NatHERS Rating |
|-------------------|----------------|
| North | 6.3 |
| North-East | 6.2 |
| East | 6.1 |
| South-East | 6.0 |
| South | 5.9 |
| South-West | 5.9 |
| West | 6.1 |
| North-West | 6.2 |

With Thermal Star™

| House Orientation | NatHERS Rating |
|-------------------|----------------|
| North | 7.3 |
| North-East | 7.3 |
| East | 7.2 |
| South-East | 7.0 |
| South | 7.0 |
| South-West | 7.0 |
| West | 7.2 |
| North-West | 7.2 |

***Disclaimer:** The 7-Star Case Study is intended to showcase the potential benefits of using the Thermal Star™ range, specifically the 150 Series thermally improved aluminium windows and doors with improved glazing options. However, it is essential to note that this study should only be considered as a guide and not as a definitive assessment of the National House Energy Rating Scheme (NatHERS) compliance. To obtain an accurate NatHERS assessment, it is crucial to engage the services of an accredited NatHERS energy assessor who can conduct a comprehensive evaluation based on the specific requirements and guidelines of NatHERS. The final NatHERS assessments should only be performed by a qualified professional to ensure compliance and accuracy.



SOUTHERN STAR
ALUMINIUM WINDOWS & DOORS

AkzoNobel
Interpon®
POWDER COATINGS

Interpon Textura® **Fine Texture Powdercoating**

The advanced Interpon Textura® powdercoat finish is standard with all aluminium windows and doors in the Thermal Star™ range.

The 'anti-mar' finish and advanced powder technology of Interpon Textura® combine to protect the surface of your windows and doors from abrasions, scuffing during transport and in-situ construction wear and tear.

Features

- Mar reduction technology for use in high wear areas.
- High durability finish to reduce transport damage.
- Textured pattern removes powder coat irregularities.
- Outperforms standard powder-coatings on all abrasion testing metrics.
- Australian-made.
- Available for the entire Southern Star Aluminium & Thermal Star™ ranges.

THERMAL STAR™ COLOUR OPTIONS

01 TEXTURA BLACK

02 TEXTURA MONUMENT

03 TEXTURA WOODLAND GREY

04 TEXTURA JASPER

05 TEXTURA DUNE

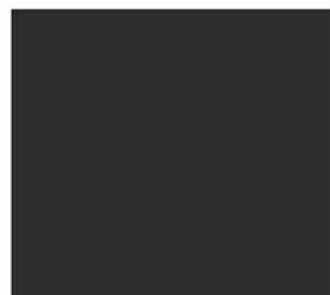
06 TEXTURA ULTRA SILVER

07 TEXTURA SURFMIST

08 TEXTURA PEARL WHITE

09 TEXTURA PAPERBARK

Interpon Textura® features an 'anti-mar' finish and advanced powder technology designed to protect from surface abrasions whether in-situ or during transport.



01



02



03



04



05



06



07



08

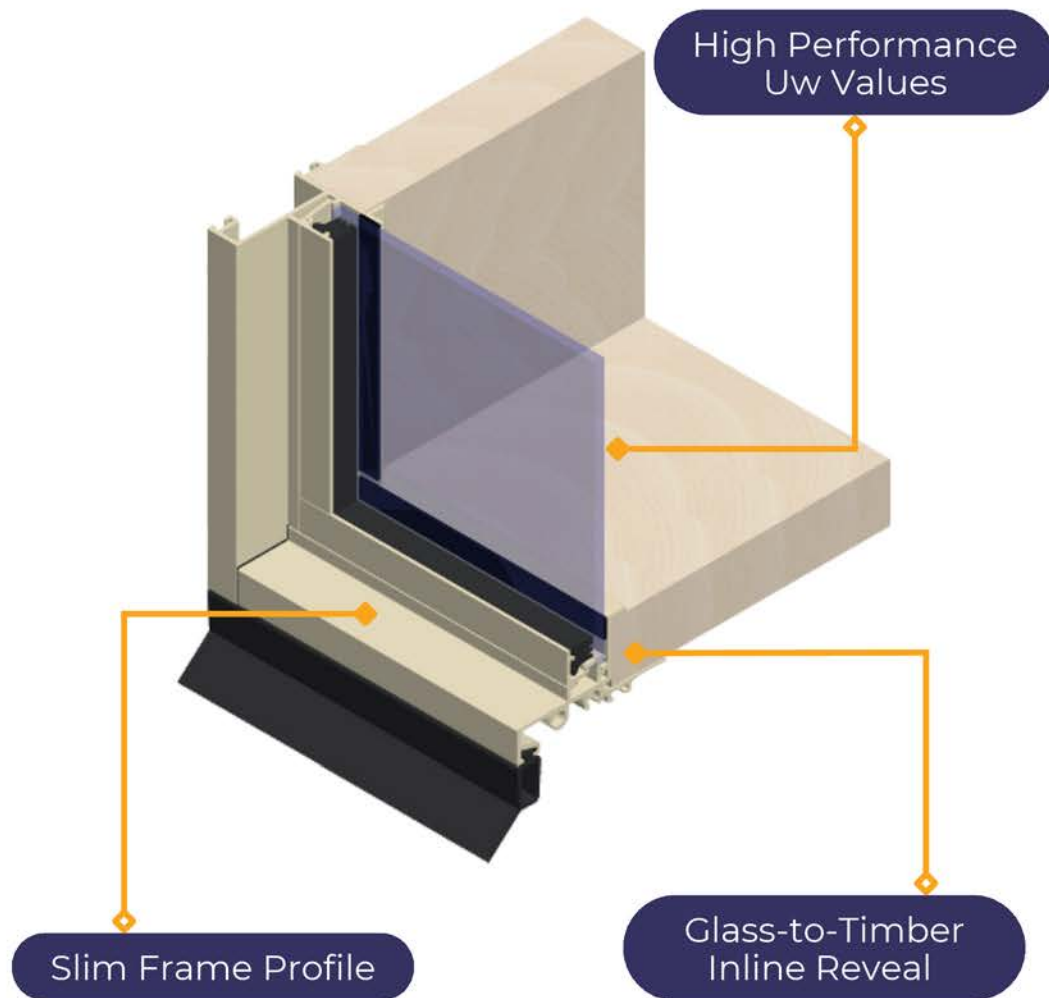


09



Thermal Star™

Thermally Improved Range



Thermal Star™ 150 Series

This series offers the standard residential suite in the Thermal Star™ range, catering to diverse residential projects with its unmatched features.

The 150 Series boasts a streamlined glass-to-timber inline reveal system, delivering a sleek and elegant appearance. Its slim frame profile not only enhances the flow of natural light but also offers expansive views, creating a harmonious blend of aesthetics and functionality for every home.



THERMAL STAR™ 150 SERIES AWNING WINDOW



| | | | |
|---------------|-------------|-------------------------|------|
| U Value Range | 3.2 - 2.2 | | |
| SHGC Range | 0.43 - 0.58 | Maximum Glass Thickness | 18mm |

The Thermal Star™ 150 Series Awning Window. sets new standards for sealing, ventilation, and thermal efficiency. Its glass-to-timber inline reveal system invites natural light while the slim frame profile offers unobtrusive views and a seamless connection with the outdoors. Experience lasting durability and ventilation with the Thermal Star™ 150 Series Awning Window. Redefine living spaces with elegance and functionality, enhancing home appeal and comfort.

THERMAL STAR™ 150 SERIES SLIDING DOOR & STACKING SLIDING DOOR



| | | | |
|---------------|-------------|-------------------------|------|
| U Value Range | 3.3 - 2.2 | | |
| SHGC Range | 0.48 - 0.67 | Maximum Glass Thickness | 18mm |

Experience modern living with our Thermal Star™ 150 Series Aluminium Sliding and Stacking Sliding Doors. These doors blend style and practicality while prioritising thermal performance and energy efficiency. The advanced thermally broken design and 18mm double-glazing provide exceptional insulation. Create a seamless connection between indoor and outdoor spaces, enhancing your home's flow and functionality.



Thermal Star™
Thermally Broken Range

WHAT DOES THERMALLY BROKEN MEAN?

Thermally broken windows and doors feature a **thermal barrier** between the **interior frame** and **exterior frame** to minimise the transferral of temperature.

The barrier is made of a low-conductive material to prevent the transfer of heat or cold through the aluminium frame and into the home.

This significantly improves energy efficiency and home comfort.



Improved Thermal Efficiency

By reducing heat transfer through the window frames, thermally broken windows can help keep your home cooler in the summer and warmer in the winter.



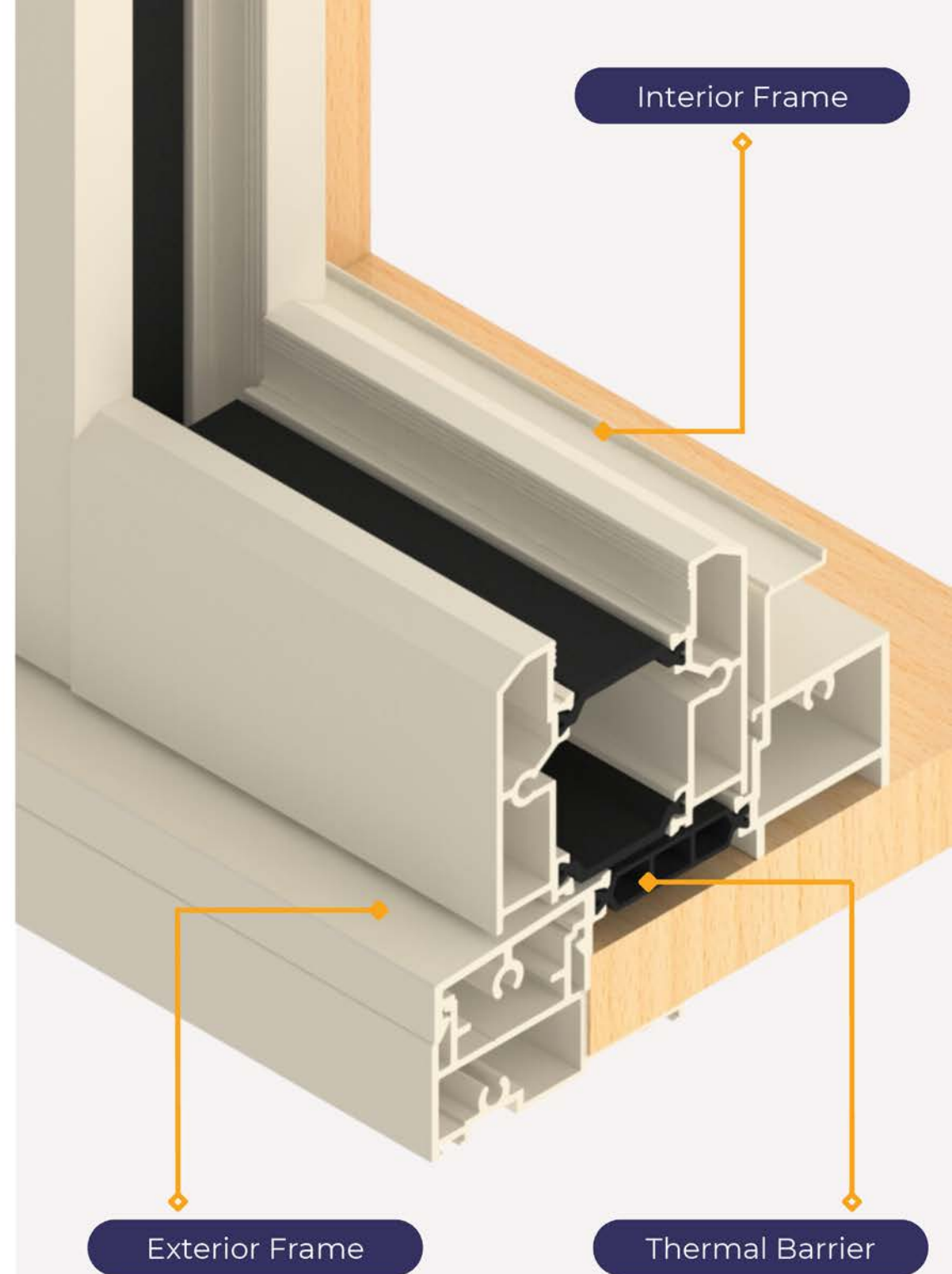
Reduced Condensation

Thermally broken windows can minimise condensation by reducing the temperature difference between the interior and exterior of the window.

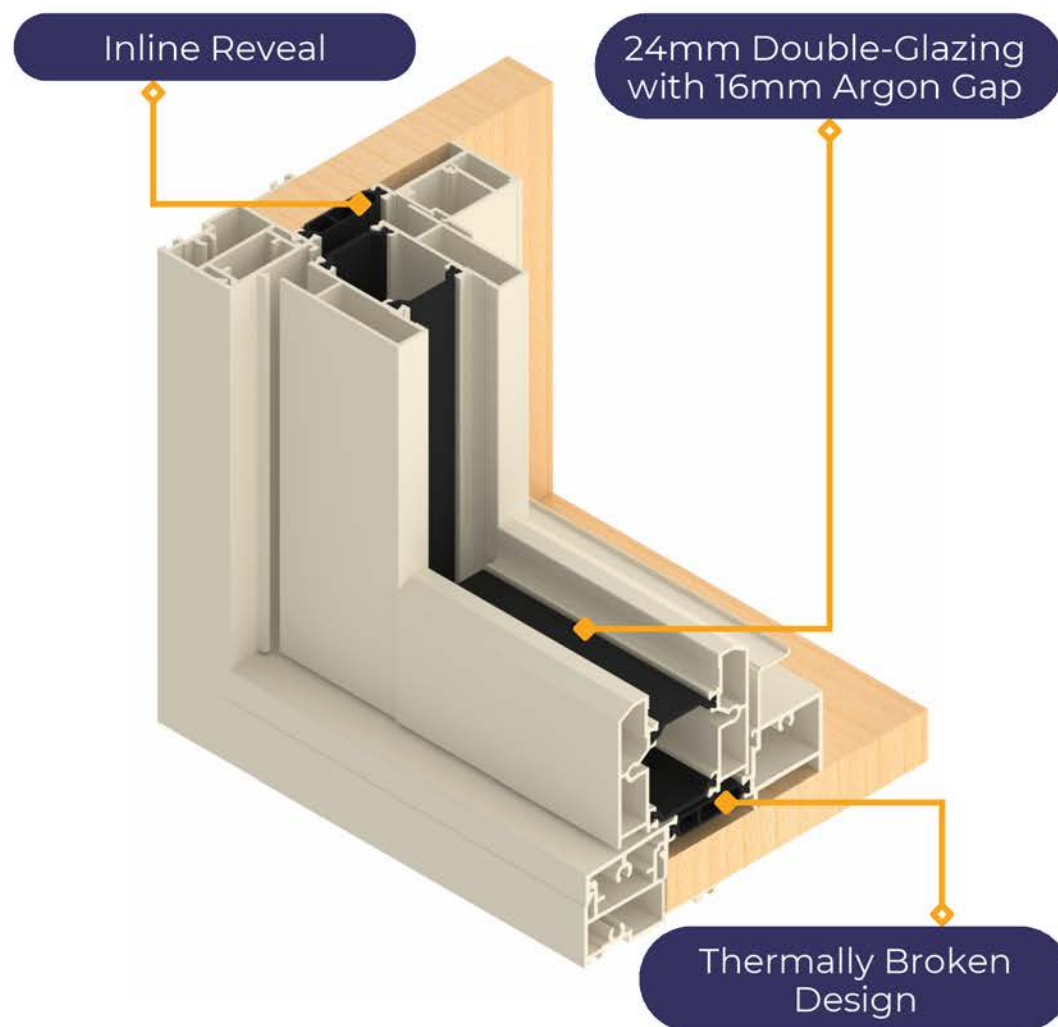


Enhanced Noise Reduction

The insulating properties of the barrier between the interior and exterior frames help to block out unwanted ambient noise.







Thermal Star™ 350 Series

This architectural suite in the Thermal Star™ range is engineered for exceptional performance in commercial and architectural projects. The 350 Series features a thermally broken design, elevating thermal performance to new heights and ensuring excellent energy efficiency.

With its stylish 100mm frame, this series boasts a robust commercial look that exudes modern elegance. The Thermal Star™ 350 Series also offers high-performance Uw and SHGC values, making it the ultimate choice for builders and architects seeking superior efficiency and sustainability.



THERMAL STAR™ 350 SERIES AWNING WINDOW



| | | | |
|---------------|-------------|-------------------------|------|
| U Value Range | 3.1 - 2.2 | Maximum Glass Thickness | 24mm |
| SHGC Range | 0.33 - 0.48 | | |

The innovative Thermal Star™ 350 Series Awning Window presetns a leap forward in architectural design. The 350 Series boasts a sleek 100mm frame, seamlessly complementing various architectural styles. For architects and builders, the choice is evident: the Thermal Star™ 350 Series Awning Window. By blending thermal engineering and captivating design, it crafts comfortable, sustainable, and brilliant spaces.

THERMAL STAR™ 350 SERIES SLIDING DOOR & STACKING SLIDING DOOR



| | | | |
|---------------|-------------|-------------------------|------|
| U Value Range | 3.5 - 2.5 | Maximum Glass Thickness | 18mm |
| SHGC Range | 0.40 - 0.54 | | |

Introducing the Thermal Star™ 350 Series Stacking Sliding Door – where style meets function. Crafted for modern living, these doors offer a seamless blend of aesthetics and practicality, perfect for entertaining and alfresco dining areas. With meticulous attention to thermal performance, the 350 Series features an innovative thermally broken design with a subtle glass-to-timber reveal, ensuring year-round comfort and energy efficiency.

Thermal Star™

Hardware & Configuration Options



WINDOW HARDWARE

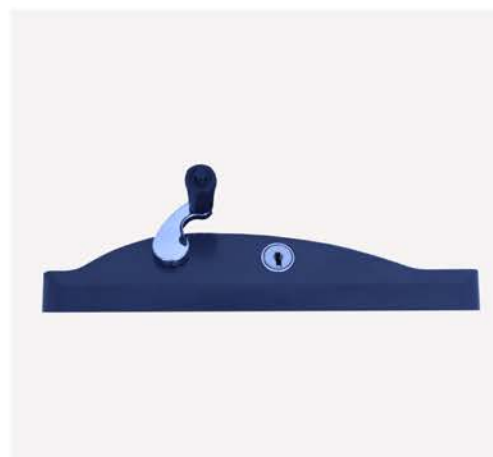
THERMAL STAR™ HARDWARE OPTIONS

01 COMET AWNING WINDER
(NON LOCKABLE)

02 AWNING WINDER
(LOCKABLE)



01



02



DOOR HARDWARE

THERMAL STAR™ HARDWARE OPTIONS

01 ALPHA SLIDING DOOR LOCK
(SNIB ONLY)

02 ALPHA SLIDING DOOR LOCK
(CYLINDER/SNIB)

03 ALPHA SLIDING DOOR LOCK
(CYLINDER/CYLINDER)

04 DELTA SLIDING DOOR LOCK
(CYLINDER/CYLINDER)

05 GAMMA SLIDING DOOR LOCK
(CYLINDER/CYLINDER)

06 400mm D Handle



01



02



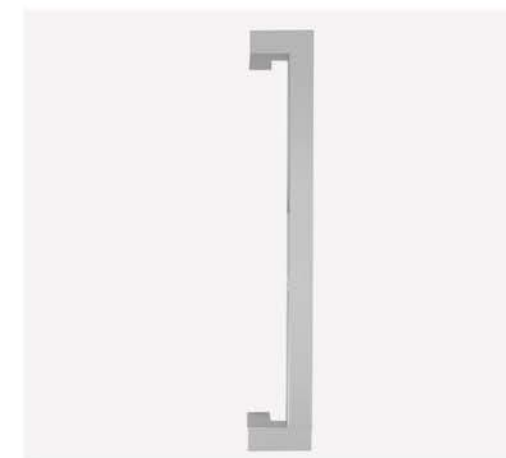
03



04



05

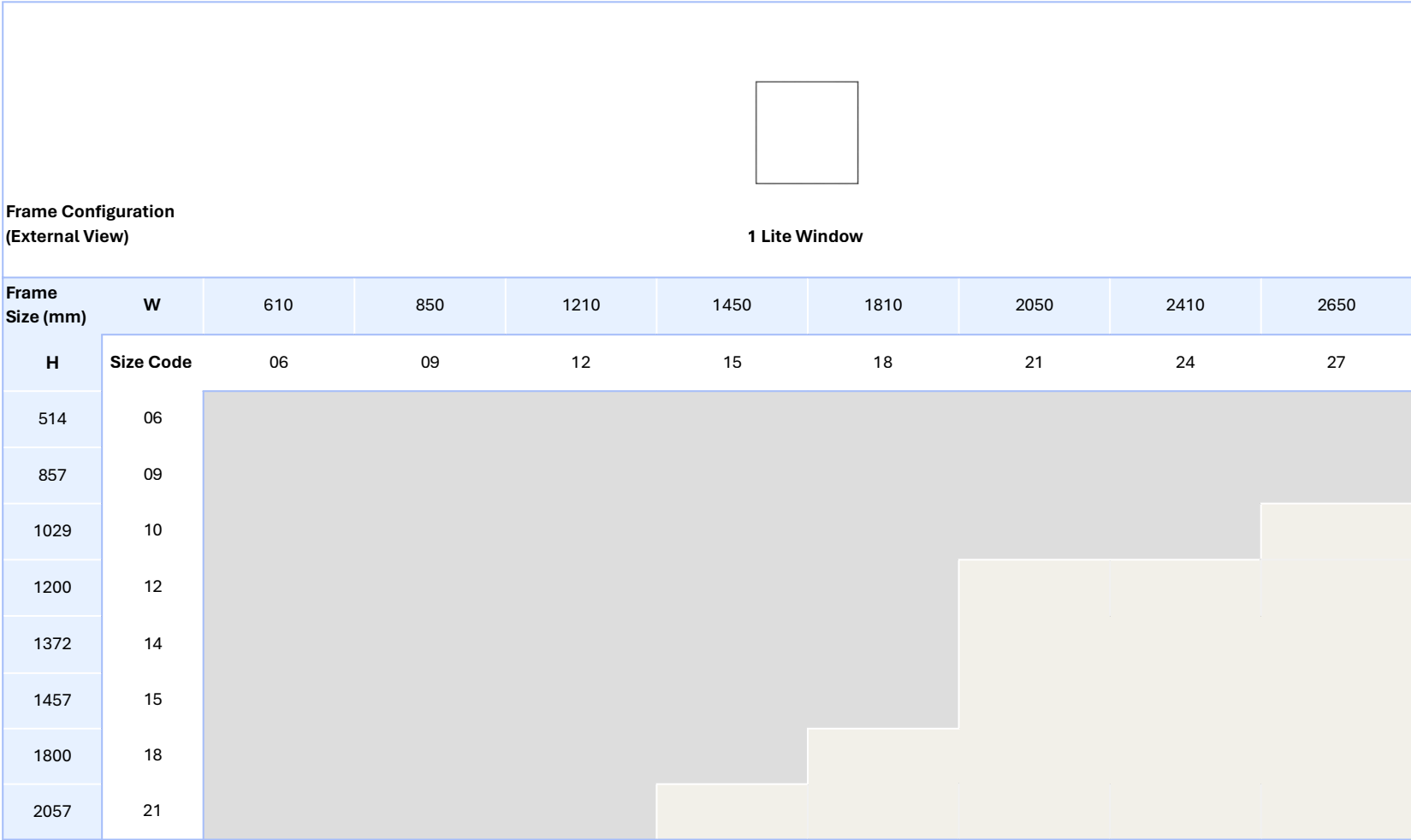


06

350 Series Only



Frame Type : AAWF
Series: 150 & 350



Window Sizes & Configurations

- The standard sizes and configurations correspond to N2 wind ratings.
- Non-standard sizes and configurations are available upon request. Wind rating limitations may apply.

Stud Opening Height & Width Calculation

- 150 Stud Opening Height = Frame Height + 25mm
- 350 Stud Opening Height = Frame Height + 30mm
- 150 & 350 Stud Opening Width = Frame Width + 20mm

Ordering & Specification Guidelines

- All windows should be specified based on the external view and measured by the Frame Size.

Code Convention for Ordering Windows

- Format: Frame Type | Size Code (H & W) | Series
 - Example: AAW 1218 150
- If you require the operable sash on the right side, add REV at the end of the code.
 - Example: AAW 1218 150 REV

Key: Product Availability

- 150 & 350 Series
- 350 Series Only

Thermal Star Awning Windows

Size Charts

Frame Type : AAW
Series: 150 & 350

Window Sizes & Configurations

- The standard sizes and configurations correspond to N2 wind ratings.
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Stud Opening Height & Width Calculation

- 150 Stud Opening Height = Frame Height + 25mm
- 350 Stud Opening Height = Frame Height + 30mm
- 150 & 350 Stud Opening Width = Frame Width + 20mm

Ordering & Specification Guidelines

- All windows should be specified based on the external view and measured by the frame size.
- The standard 2-lite window comes with the operable sash on the left side.

Code Convention for Ordering Windows

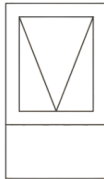
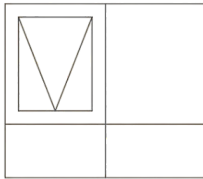
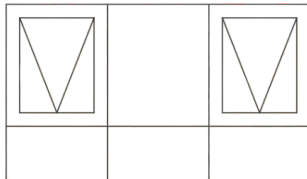
- Format: Frame Type | Size Code (H & W) | Series
 - Example: AAW 1218 150
- If you require the operable sash on the right side, add REV at the end of the code.
 - Example: AAW 1218 150 REV

Key: Product Availability

150 & 350 Series

350 Series Only

Frame Type : AAW
Series: 150 & 350

| | | | | | | | | | | | |
|---|-----------|--|-----|--|------|---|------|---|------|------|--|
|  | |  | | | |  | | | | | |
| Frame Configuration (External View) | | 2 Lite Window (Sash Over Fixed) | | 4 Lite Window (Sash + Fixed Over Fixed + Fixed) | | | | 6 Lite Window (Sash + Fixed + Sash Over Fixed + Fixed + Fixed) | | | |
| Frame Size (mm) | | W | 610 | 850 | 1210 | 1450 | 1810 | 2050 | 2410 | 2650 | |
| H | Size Code | 06 | 09 | 12 | 15 | 18 | 21 | 24 | 27 | | |
| 1800 | 18 | | | | | | | | | | |
| 2057 | 21 | | | | | | | | | | |

Window Sizes & Configurations

- The standard sizes and configurations correspond to N2 wind ratings.
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Stud Opening Height & Width Calculation

- 150 Stud Opening Height = Frame Height + 25mm
- 350 Stud Opening Height = Frame Height + 30mm
- 150 & 350 Stud Opening Width = Frame Width + 20mm

Ordering & Specification Guidelines

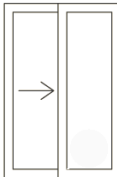
- All windows should be specified based on the external view and measured by the frame size.
- The standard 2-lite window comes with the operable sash on the left side.

Code Convention for Ordering Windows

- Format: Frame Type | Size Code (H & W) | Series
 - Example: AAW 1218 150
- If you require the operable sash on the right side, add REV at the end of the code.
 - Example: AAW 1218 150 REV

Key: Product Availability150 & 350 Series

Frame Type : ASD
Series: 150 & 350

| Frame Configuration (External View) | | <div></div> <div>2 Lite Door (Sliding + Fixed)</div> | | | | | |
|--|-----------|--|------|------|------|------|------|
| | | | | | | | |
| Frame Size (mm) | W | 1450 | 1810 | 2050 | 2410 | 2650 | 3010 |
| H | Size Code | 15 | 18 | 21 | 24 | 27 | 30 |
| 2100 | 21 | | | | | | |
| 2400 | 24 | | | | | | |
| 2700 | 27 | | | | | | |

Door Sizes & Configurations

- The standard sizes and configurations correspond to N2 wind ratings.
- Non-standard sizes and configurations are available upon request. Wind rating limitations may apply.

Stud Opening Height & Width Calculation

- 150 & 350 Stud Opening Height = Frame Height + 30mm
- 150 & 350 Stud Opening Width = Frame Width + 20mm

Ordering & Specification Guidelines

- All doors should be specified based on the external view and measured by the frame size.
- The standard 2-lite door comes with the operable panel on the left side.

Code Convention for Ordering Windows

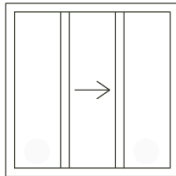
- Format: Frame Type | Size Code (H & W) | Series
 - Example: ASD 2118 150
- If you require the operable panel on the right side, add REV at the end of the code.
 - Example: ASD 2118 150 REV

Key: Product Availability

150 & 350 Series

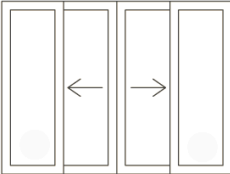
350 Series Only

Frame Type : ASD
Series: 150 & 350

| <div>Frame Configuration (External View)</div> <div></div> <div>3 Lite Door (Fixed + Sliding + Fixed)</div> | | | | | | | | | | | | |
|---|-----------|-----------------|-----------------|------|-----------------|-----------------|------|-----------------|------|--|--|--|
| Frame Size (mm) | W | 2760 | 2692 | 3052 | 3120 | 3592 | 3660 | 4020 | 4560 | | | |
| H | Size Code | 28 | 27 | 30 | 31 | 36-3 | 37 | 40 | 46 | | | |
| 2100 | 21 | 150 Series Only | 350 Series Only | | 150 Series Only | 350 Series Only | | 350 Series Only | | | | |
| 2400 | 24 | | | | | | | | | | | |
| 2700 | 27 | | Not Available | | | Not Available | | | | | | |

- Door Sizes & Configurations**
- The standard sizes and configurations correspond to N2 wind ratings.
 - Non-standard sizes and configurations are available upon request. Wind rating limitations may apply.
- Stud Opening Height & Width Calculation**
- 150 & 350 Stud Opening Height = Frame Height + 30mm
 - 150 & 350 Stud Opening Width = Frame Width + 20mm
- Ordering & Specification Guidelines**
- All doors should be specified based on the external view and measured by the frame size.
 - The standard 2-lite door comes with the operable panel on the left side.
- Code Convention for Ordering Windows**
- Format: Frame Type | Size Code (H & W) | Series
 - Example: ASD 2118 150
 - If you require the operable panel on the right side, add REV at the end of the code.
 - Example: ASD 2118 150 REV
- Key: Product Availability**
- 150 Series Only
 - 350 Series Only
 - Not Available

Frame Type : ASD
Series: 150 & 350

| <div>Frame Configuration (External View)</div> <div></div> <div>4 Lite Door (Fixed + Sliding + Sliding + Fixed)</div> | | | | | | | | | | | |
|---|-----------|------|------|------|------|------|------|------|------|------|------|
| Frame Size (mm) | W | 2836 | 2852 | 3556 | 3572 | 4036 | 4052 | 4756 | 4772 | 5236 | 5956 |
| H | Size Code | 29 | 29 | 36 | 36-4 | 41 | 41 | 48 | 48 | 53 | 60 |
| 2100 | 21 | | | | | | | | | | |
| 2400 | 24 | | | | | | | | | | |
| 2700 | 27 | | | | | | | | | | |

Door Sizes & Configurations

- The standard sizes and configurations correspond to N2 wind ratings.
- Non-standard sizes and configurations are available upon request. Wind rating limitations may apply.

Stud Opening Height & Width Calculation

- 150 & 350 Stud Opening Height = Frame Height + 30mm
- 150 & 350 Stud Opening Width = Frame Width + 20mm

Ordering & Specification Guidelines

- All doors should be specified based on the external view and measured by the frame size.
- The standard 2-lite door comes with the operable panel on the left side.

Code Convention for Ordering Windows

- Format: Frame Type | Size Code (H & W) | Series
 - Example: ASD 2118 150
- If you require the operable panel on the right side, add REV at the end of the code.
 - Example: ASD 2118 150 REV

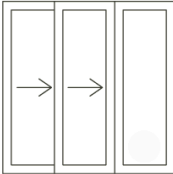
Key: Product Availability

150 Series Only

350 Series Only

Not Available

Frame Type : ASD
Series: 150 & 350

| <div><div>Frame Configuration (External View)</div><div></div><div>3 Lite Door (Sliding + Sliding + Fixed)</div></div> | | | | | | | | |
|--|-----------|--------|--------|--------|--------|--------|--------|--------|
| Frame Size (mm) | W | 2128 | 2631 | 2668 | 2991 | 3028 | 3531 | 3568 |
| H | Size Code | 21-STK | 27-STK | 27-STK | 30-STK | 30-STK | 36-STK | 36-STK |
| 2100 | 21 | | | | | | | |
| 2400 | 24 | | | | | | | |
| 2700 | 27 | | | | | | | |

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Code Convention for Ordering Windows

- Format: Frame Type | Size Code (H & W) | Series
 - Example: ASD 2118 150
- If you require the operable panel on the right side, add REV at the end of the code.
 - Example: ASD 2118 150 REV

Key: Product Availability

150 Series Only

350 Series Only

Not Available

Thermal Star Stacking Doors

Size Charts

Frame Type : ASD
Series: 150 & 350

| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>6 Lite Door (Fixed + Sliding + Sliding + Sliding + Sliding + Fixed)</div> | | | | | | | |
|--|-----------|--------|--------|--------|--------|--------|--------|
| Frame Size (mm) | W | 4116 | 4206 | 5196 | 5286 | 5916 | 6006 |
| H | Size Code | 42-STK | 43-STK | 53-STK | 53-STK | 60-STK | 60-STK |
| 2100 | 21 | | | | | | |
| 2400 | 24 | | | | | | |
| 2700 | 27 | | | | | | |

- Door Sizes & Configurations**
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 - Example: ASD 2118 150
 - If you require the operable panel on the right side, add REV at the end of the code.
 - Example: ASD 2118 150 REV
- Key: Product Availability**
- 150 Series Only

350 Series Only

Not Available



SOUTHERN STAR
ALUMINIUM WINDOWS & DOORS

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DESIGN
INNOVATION
QUALITY
PERFORMANCE



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WINDOWS & DOORS
www.southernstarwindows.com.au