

BRADNAM'S

# THERMAL SMART SOLUTIONS

DOUBLE GLAZED | SOLAR COMFORT™ | SOLAR BLOCK™ | SIGNATURE THERMAL BREAK



ASK OUR SALES  
REPRESENTATIVES ABOUT

REDUCE YOUR ENERGY  
COSTS BY AS MUCH AS

DOUBLED GLAZED

23%\*

**Bradnam's**  
windows & doors

Janke Constructions

## Windows and Doors

# Energy Efficiency

Compared to other building materials, **ordinary windows and doors** are poor heat insulators. They are the path of least resistance for heat flow, hence they allow a disproportionate amount of heat loss and gain compared to other building materials.

A typical, well insulated house with ordinary windows and doors can lose up to 49% of its interior heat in winter and allow up to 87% of solar heat gain in summer.

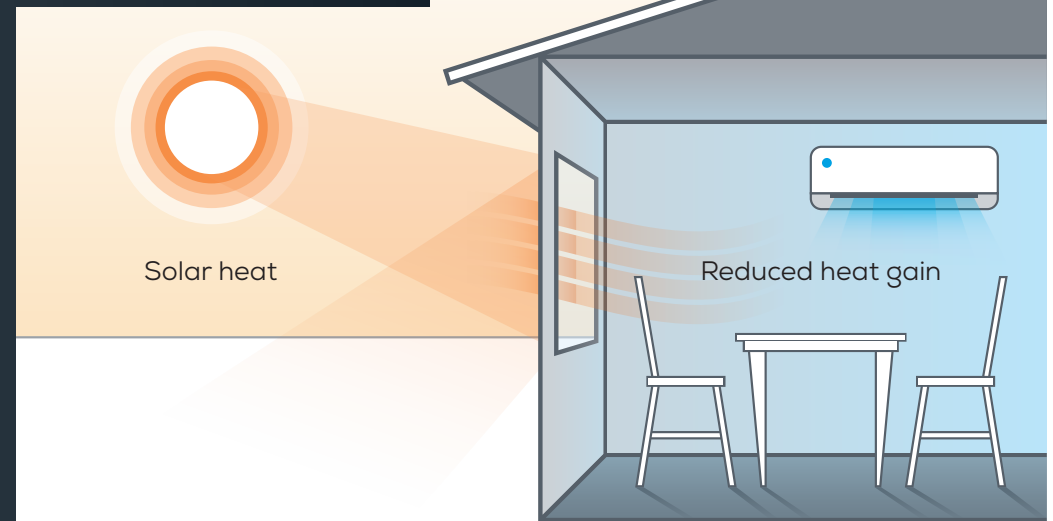
## Energy Efficient Windows and Doors

**Energy efficient windows and doors** are designed to provide higher levels of resistance to heat transfer – acting as extra thermal insulation through high performance frames, seals and glass.

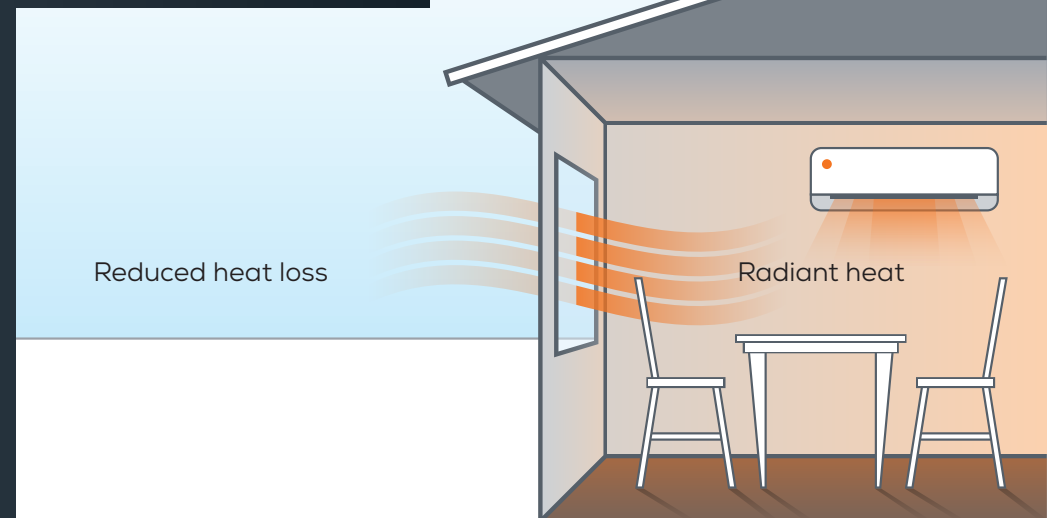
They help insulate from temperature extremes, smoothing out the peaks and troughs throughout the year – helping homes stay cooler in summer and warmer in winter.

\* Energy savings shown in this brochure are based on simulation of a single storey house in different climates using BERS Pro energy simulation software. The figures are indicative only as climate, house design and occupancy lifestyle will affect the amount of energy savings.

## Cooler in Summer



## Warmer in Winter



Energy Efficient  
Windows and Doors

## Key Benefits

### Year Round Comfort

Keeps homes at a comfortable temperature across all seasons by acting as extra thermal insulation.

### Lower Energy Bills

Lessens the need for artificial heating and cooling, lowering household energy consumption and electricity bills.

### Reduced Carbon Footprint

Lowers household energy consumption resulting in less greenhouse gas emissions.

### Interior Protection

Preserves furnishings inside the house from fading by reducing UV radiation.



Building or renovating in today's environment demands the need to satisfy window and door energy efficiency requirements. As the market leader in Australia for aluminium and glass building products, Bradnam's have developed its range of **Thermal Smart Solutions** to satisfy these needs.

## Bradnam's Thermal Smart Solutions

### Double Glazed

**Double Glazed** products are designed to reduce the amount of warmth lost during winter and prevent unwanted heat gain during summer – helping homes stay cooler in summer and warmer in winter.

### Solar Comfort™

**Solar Comfort™** is a cost effective way to keep homes at a comfortable temperature all year round, acting as extra insulation from outside elements.

### Solar Block™

**Solar Block™** is a simple way to reduce the heat and glare of the Australian sun, it's like a pair of sunglasses for a house.

### Signature Thermal Break

**Signature Thermal Break** uses advanced technology to create a barrier between the interior and exterior surfaces of windows and doors, improving the energy efficiency of buildings.



### Design and Symmetry

#### Flexibility by Design

Bradnam's range of Thermal Smart Solutions provide a high level of design flexibility. Windows and doors are available in expansive sizes and lifestyle configurations, with modern hardware and beautiful frame colours.

#### One Aesthetic

A feature of the Thermal Smart Solutions range is its overall visual symmetry within the range and with other Bradnam's window and door products. This consistency in style and finish eliminates any visual clashes and provides a clean, consistent finish throughout a house.

Smart Solutions

## Double Glazed

**Double Glazed** products are designed to reduce the amount of warmth lost during winter and prevent unwanted heat gain during summer – helping homes stay cooler in summer and warmer in winter.

They consist of two panes of glass bonded together by a spacer and separated by a hermetically sealed argon gas filled space. The air gap acts as a thermal barrier between the inner and outer pieces of glass, creating an effective insulation system.

Bradnam's double glazed products feature a warm edge spacer made of an extruded, thermoset polymer structural silicone foam which delivers exceptional thermal performance, argon gas retention and long-term durability.

Double Glazed products are available in different glazing options.

Compared to ordinary windows and doors, **Double Glazed** products can reduce:

- up to **23%\*** in energy costs
- the amount of condensation on glass during winter



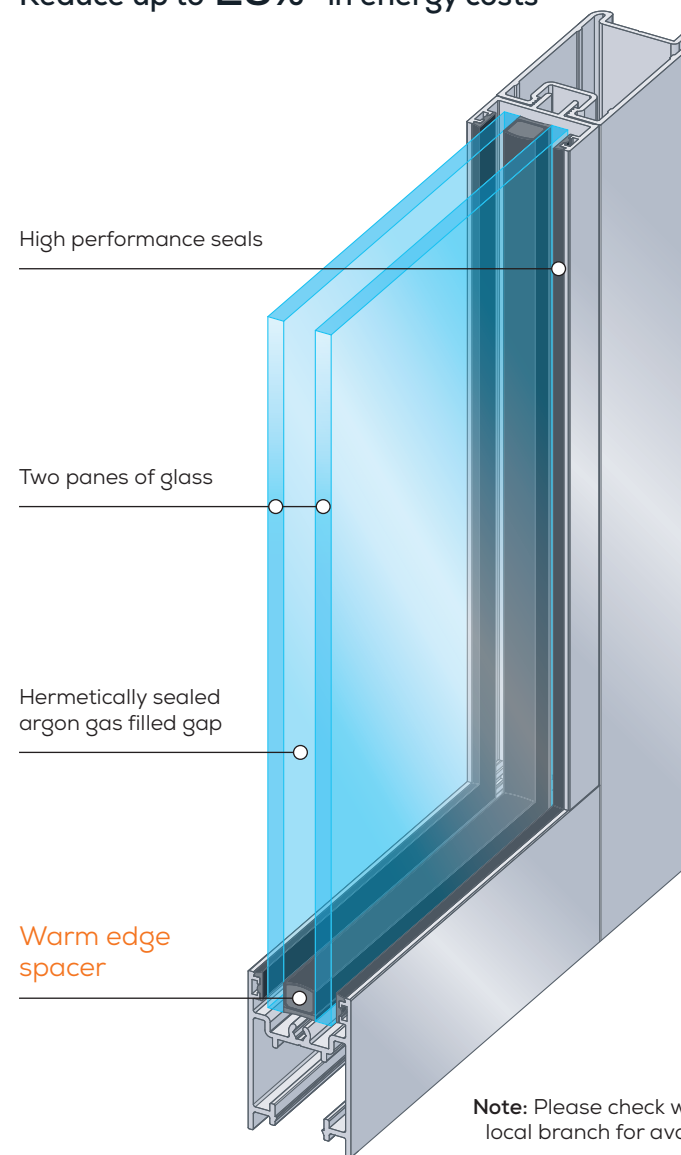
### Minimise condensation on Glass

Bradnam's double glazed products can help reduce the incidence of condensation on the glass of windows and doors during winter.

The hermetically sealed argon gas filled space and the warm edge spacer act as thermal barriers. They keep the surface of the interior piece of glass similar to the room temperature. This reduces the incidence of moist air inside the house meeting cooler surface of glass, which facilitates condensation.

Cooler in Summer | Warmer in Winter

Reduce up to **23%\*** in energy costs



Smart Solutions

## Solar Comfort™

Solar Comfort™ is a cost effective way to keep homes at a comfortable temperature all year round, acting as extra insulation from outside elements.

The Solar Comfort™ system uses low-e (emissivity) glass to reduce radiative heat transfer. It also includes high quality seals stopping heat from leaking between the low-e glass and aluminium frame.

Together they increase the ability of the Solar Comfort™ system to insulate. This keeps heat inside during winter – and out during summer.

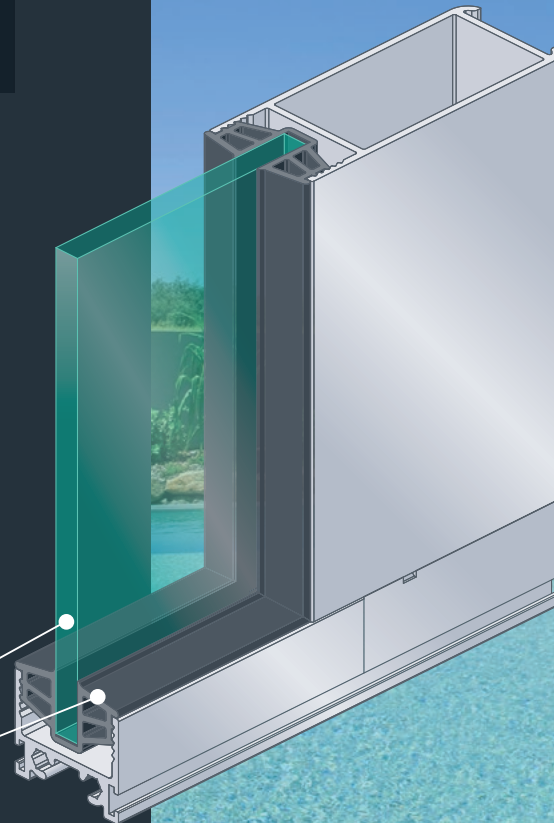
Compared to ordinary windows and doors, **Solar Comfort™** can eliminate:

- up to **40%** of heat loss
- up to **50%** of heat gain

Low emissivity glass  
High performance seals

Cooler in Summer | Warmer in Winter

Reduce up to **12%\*** in energy costs



Smart Solutions

## Solar Block™

Solar Block™ is a simple way to reduce the heat and glare of the Australian sun, it's like a pair of sunglasses for a house.

Its attractive tinting helps stop temperatures from soaring in the heat of the day, reducing the need for air conditioning and keeping your home cool and comfortable during summer.

Compared to ordinary windows and doors, Solar Block™ can provide:

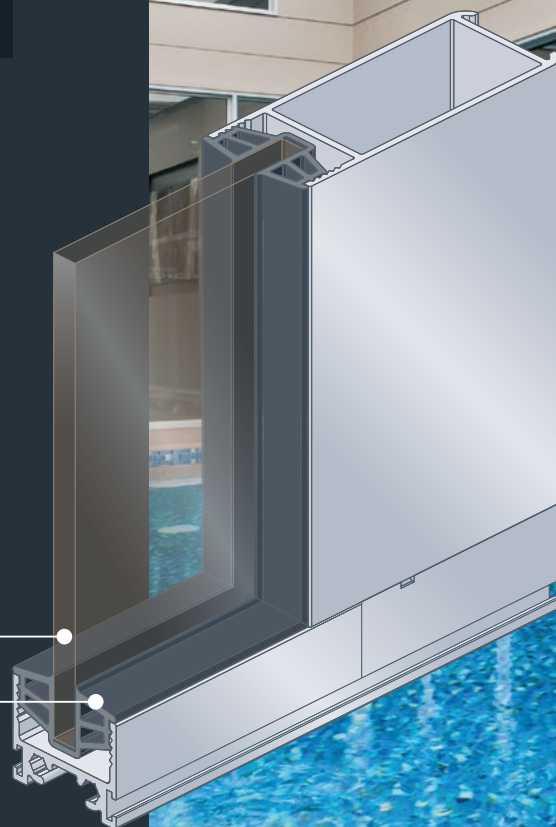
- up to **36%** reduction in heat gain
- up to **78%** reduction in glare

Grey / Dark Grey tinted glass

High performance seals

Minimise heat gain | Cooler in Summer

Reduce glare by up to **78%**



Smart Solutions

## Signature Thermal Break

**Signature Thermal Break** uses advanced technology to create a barrier between the interior and exterior surfaces of windows and doors, improving the energy efficiency of buildings.

The Thermal Break system uses reinforced polyamide extrusions and double glazing with a warm edge spacer to separate the exterior and interior of the aluminium window or door.

Together, they act as insulated barriers, minimising heat from passing from one side of the door or window, to the other. This keeps heat inside during winter – and out during summer.

Signature Thermal Break products are available in different glazing options.

Compared to ordinary windows and doors, **Signature Thermal Break** can reduce:

- up to **27%\*** in energy costs
- the amount of condensation on frames and glass during winter



### Get a (Thermal) Break from Condensation

Although they may seem the culprit, windows and doors **do not cause condensation**.

In fact, the Signature Thermal Break range is designed to help reduce the incidence of condensation on windows and doors.

The reinforced polyamide extrusions and double glazing unit act as thermal barriers. They keep the interior surfaces of the windows and doors similar to the room temperature. This minimises the incidence of moist air inside the house meeting cooler surfaces, which facilitates condensation.

Cooler in Summer | Warmer in Winter

Reduce up to **27%\*** in energy costs

Reinforced polyamide extrusions

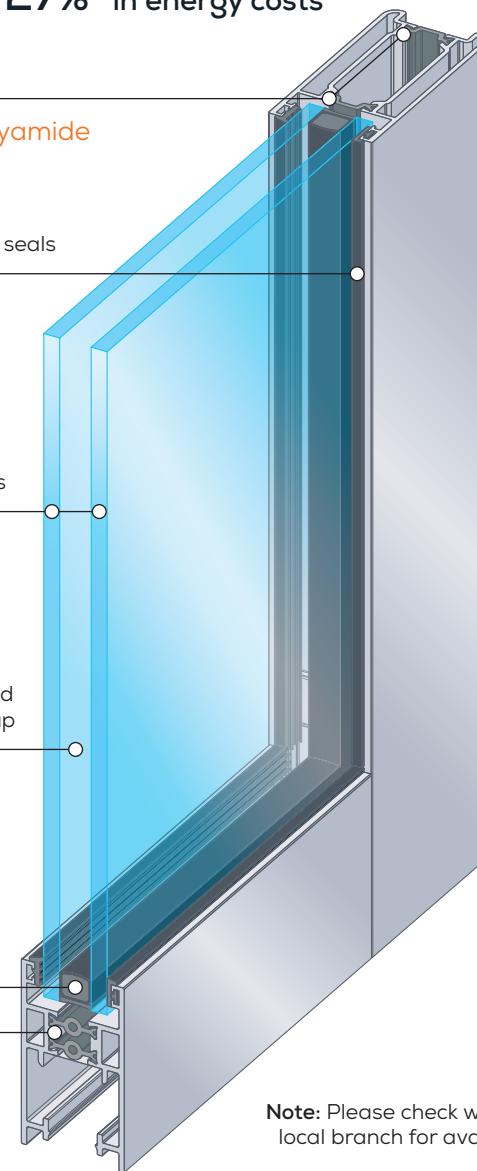
High performance seals

Two panes of glass

Hermetically sealed argon gas filled gap

Warm edge spacer

Reinforced polyamide extrusions



**Note:** Please check with your local branch for availability.

# Sample Energy Ratings

## Signature Thermal Break

| Product Type   | Glass Type                            | Glass Thickness  | U-value | SHGC |
|----------------|---------------------------------------|------------------|---------|------|
| Sliding Window | Low-E glass / Argon Gap / Low-E glass | 4mm / 12mm / 4mm | 2.5     | 0.42 |
| Awning Window  | Low-E glass / Argon Gap / Low-E glass | 4mm / 12mm / 4mm | 2.2     | 0.42 |
| Fixed Lite     | Low-E glass / Argon Gap / Low-E glass | 4mm / 12mm / 4mm | 1.8     | 0.34 |
| Sliding Door   | Low-E glass / Argon Gap / Clear       | 4mm / 12mm / 4mm | 2.1     | 0.31 |
| Hinged Door    | Low-E glass / Argon Gap / Low-E glass | 4mm / 12mm / 4mm | 2.1     | 0.43 |

## Double Glazed

| Product Type             | Glass Type                            | Glass Thickness  | U-value | SHGC |
|--------------------------|---------------------------------------|------------------|---------|------|
| Signature Sliding Window | Low-E glass / Argon Gap / Clear       | 4mm / 10mm / 4mm | 3.2     | 0.53 |
| Essential Awning Window  | Low-E glass / Argon Gap / Low-E glass | 4mm / 12mm / 4mm | 3.3     | 0.33 |
| Signature Fixed Lite     | Low-E glass / Argon Gap / Clear       | 4mm / 12mm / 4mm | 2.7     | 0.61 |
| Signature Sliding Door   | Low-E glass / Argon Gap / Clear       | 4mm / 10mm / 4mm | 2.9     | 0.56 |
| Signature Hinged Door    | Low-E glass / Argon Gap / Clear       | 4mm / 12mm / 4mm | 3.1     | 0.51 |

## Solar Comfort

| Product Type             | Glass Type  | Glass Thickness | U-value | SHGC |
|--------------------------|-------------|-----------------|---------|------|
| Essential Sliding Window | Low-E glass | 6mm             | 4.6     | 0.33 |
| Essential Awning Window  | Low-E glass | 6mm             | 5.1     | 0.39 |
| Signature Fixed Lite     | Low-E glass | 6.38mm          | 4.3     | 0.45 |
| Essential Sliding Door   | Low-E glass | 6.38mm          | 4.2     | 0.59 |
| Signature Hinged Door    | Low-E glass | 6.38mm          | 4.2     | 0.38 |

## Solar Block

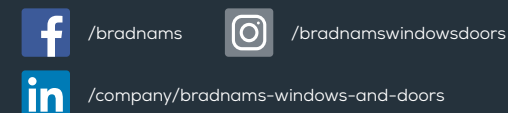
| Product Type             | Glass Type      | Glass Thickness | U-value | SHGC |
|--------------------------|-----------------|-----------------|---------|------|
| Signature Sliding Window | Dark Grey glass | 5mm             | 6.4     | 0.47 |
| Essential Awning Window  | Dark Grey glass | 5mm             | 6.5     | 0.44 |
| Signature Fixed Lite     | Dark Grey glass | 5mm             | 6.2     | 0.50 |
| Essential Sliding Door   | Dark Grey glass | 5mm             | 6.1     | 0.49 |
| Signature Hinged Door    | Dark Grey glass | 5mm             | 5.8     | 0.42 |



### Note:

For detailed Bradnam's WERS ratings including WERS ID numbers please visit [www.bradnams.com.au/info-centre/technical-library/energy-ratings](http://www.bradnams.com.au/info-centre/technical-library/energy-ratings)

For more information call Bradnam's on  
**1300 WINDOWS 1300 946369**  
 or visit [bradnams.com.au](http://bradnams.com.au)



WINDOWS & DOORS

INSECT & SAFETY SCREENS

SHOWER SCREENS

MIRRORS & WARDROBES

GLASS SPLASHBACKS & SHELVING



### Australian Owned & Made

Bradnam's products are proudly made in Australia and designed specifically to meet all Australian conditions.

Product availability, pricing, features, options, sizes, configurations and performance are subject to regional variations, design requirements and building codes.

Images are for illustration purposes only and may not accurately represent the product. Bradnam's Windows & Doors reserves the right to change, alter or delete any aspect of this product without notice. We recommend visiting a Bradnam's showroom before ordering to view colour swatches, glass samples and actual products.



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