

THERM A FRAME
THERMALLY BROKEN WINDOW SYSTEMS

Solutions for Commercial and Residential Applications

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What is a Thermal Break?

A thermal break is an element of low thermal conductivity placed in an assembly to reduce the flow of thermal energy between conductive materials such as Aluminium. Thermal Breaks made of polyamide have been the chosen method of thermally breaking aluminum window products for more than thirty years in Europe, where the product originated.

Alspec uses only Technoform Polyamide Strips in our ThermAFrame. Technoform Thermal Breaks are made of fibreglass reinforced polyamide with glass fibres oriented in 3 directions for optimal structural performance. Structural performance and mechanical response are exceptional with the multidirectional glass fibres oriented in 3D to give improved load transfer.

Thermally Broken Window Systems

Alspec's new thermally broken window system is an energy efficient option that utilises the latest in European Polyamide Thermal Break technology, combined with Australian design principles, to achieve the best possible results in energy rating in a system that is easy to fabricate and install. (SZ1662A)

The systems versatility allows for seamless integration across our ThermAFrame Centre Pocket and Flush Glazed Systems to achieve the most challenging structural and energy requirements. It has been designed to accommodate high performance double glazed units that can maximise the performance of the building envelope.

Alspec's ThermAFrame is currently available in:

- 101.6mm Centre Pocket Commercial Framing
- 150mm Centre Pocket Commercial Framing
- 101.6mm Flush Glazed Commercial Framing
- 150mm Flush Glazed Commercial Framing
- 50mm Commercial Door
- 56mm Awning/Casement Window

Look for this symbol in our range of commercial, residential and screening products to ensure they have been designed and tested to Australian Standards to achieve the best possible thermal energy rating results.



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THERMALLY BROKEN WINDOW SYSTEMS

THERMALLY BROKEN AWNING/CASEMENT WINDOW

THERMALLY BROKEN AWNING / CASEMENT WINDOW

Alspec's ThermAFrame Awning / Casement window system is an energy efficient window option that utilises the latest in European Polyamide Thermal Break technology combined with Australian design principles to achieve the best possible results in energy rating in a system that is easy to fabricate and install. The systems versatility allows seamless integration into ThermAFrame Centre Pocket and Flush Glazed Systems to achieve the most challenging structural and energy requirements. It has been designed to accommodate high performance double glazed units that can maximise the performance of the building envelope.

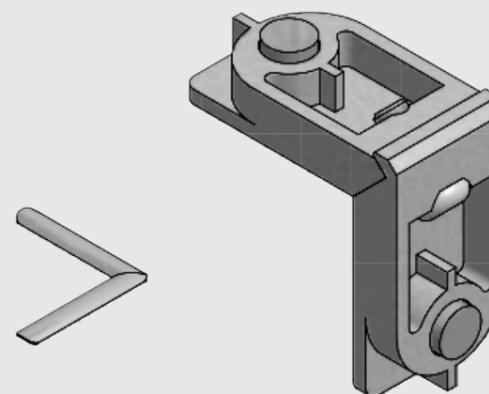
Available in a 56mm sash featuring a 'Double Strut' Thermal Break design the ThermAFrame Awning / Casement allows architects to minimise the transfer of heat or cold across a window with a standard system. Glazing could not be simpler with the colour coded wedges from standard Alspec systems being utilised to deal with the many diverse glass options.



Featuring overlapping internal and external seals, the ThermAFrame Awning / Casement Window is the preferred choice where superior weather performance is required. A range of glass thickness options up to 32mm allows the system to be configured for excellent thermal performance. The system is complemented with a range of heavy duty Stainless Steel Friction Stays to ensure maximum performance with large, heavy IGUs. Sashes can be operated with manual or electric Chainwinders or Cam handles, locking or non-locking. With the use of our Chainwinder adaptor, insect and security screens can easily be added from the inside of the building.

Key Features

- Excellent 'Uw' values down as low as 2.7.
- Utilises a strong 'Double Strut' thermal break construction for maximum strength in the sash.
- Wide glazing pocket accepts Double glazed options up to 32mm.
- Complemented by a range of Heavy Duty Stainless Steel Friction Stays.
- European corner clamps help to simplify fabrication.



- Integrated screening options available.
- Sash features internal and external weather seals for maximum performance.
- Electric chainwinder option.
- Colour coded glazing wedges ranging from 3mm to 7mm in one mm increments.
- Integrates with ThermAFrame Centre Pocket and Flush Glazed Systems.

Specifications:

- For structural performance refer to the Alspec Technical Manual.
- WERS Rated
- Designed and tested to AS2047

Performance

Serviceability Pressure:	Up to 3000Pa
Ultimate Pressure:	Up to 4600Pa
Water Penetration:	Up to 800Pa
SHGC Range:	0.22 - 0.40
Uw Range:	2.7 - 3.3 W/m ² · °K



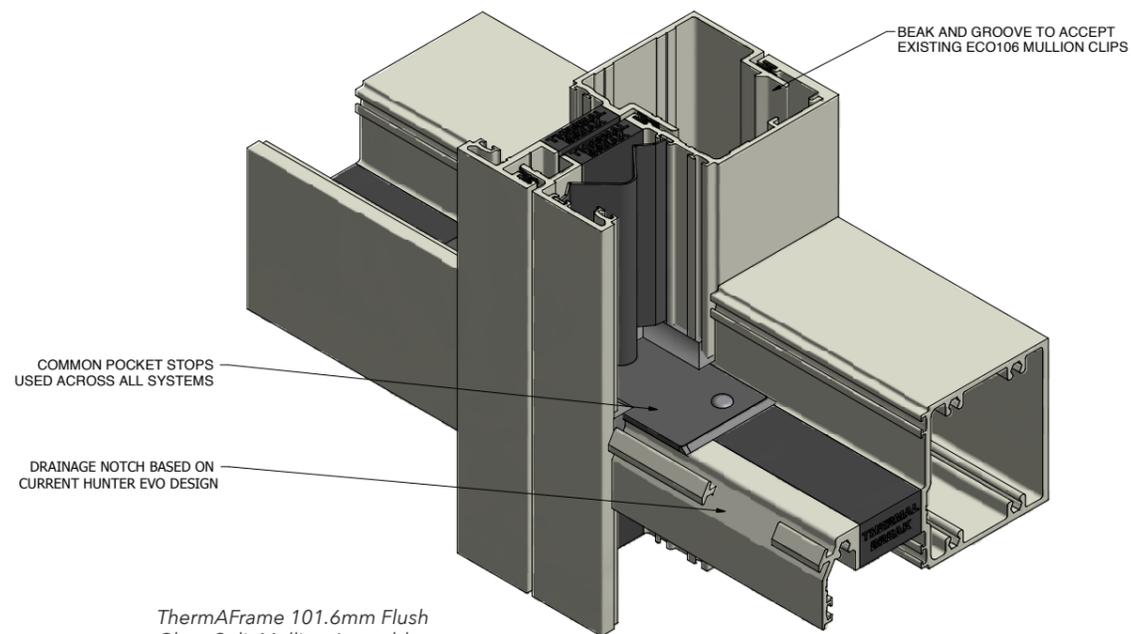
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THERMALLY BROKEN WINDOW SYSTEMS

FLUSHED GLAZED THERMALLY BROKEN FRAMING

FLUSH GLAZED THERMALLY BROKEN FRAMING

Alspec's ThermAFrame Flush Glazed system is a high performance energy efficient framing option that utilises the latest in European Polyamide Thermal Break technology combined with Australian design principles to achieve the best possible results in energy rating in a system that is easy to fabricate and install. The systems versatility allows countless specifications to be achieved, from standard shopfront applications through to low rise window wall applications. It has been designed to accommodate high performance double glazed units that can maximise the performance of the building envelope.



Available in two frame depths 101.6mm and 150mm x 60mm, ThermAFrame Flush Glazed allows architects to minimise the transfer of heat or cold across a window with a standard system.

Glazing could not be simpler with the colour coded wedges from standard Alspec systems being utilised to deal with the many diverse glass options. With the use of heavy duty mullions the ThermAFrame 150mm Flush Glazed system with a myriad of mullion and reinforcing splice options can allow heights to reach and surpass 4.5m depending upon wind loading conditions.

Subsills are recommended for optimum weathering with all ThermAFrame systems.

Key Features

- Patent Pending Glazing Pocket Design maximises energy performance.
- Patent Pending Glazing Pocket Design allows for insertion of optional accessories to reduce total window U_w values where required.
- Excellent ' U_w ' values down as low as 1.9.
- 101.6mm and 150mm x 60mm Framing System.
- 38mm wide glazing pocket accepts Double glazed options up to 32mm.
- Thermally Broken Sub Framing designed to support heavy double glazed frames including the option of a two piece sub jamb for easier installation.
- Thermally Broken Hinge Door Threshold also available.
- The glazing pockets are designed to allow for the installation of large IGUs and provides the required glass cover to comply with AS1288.
- Secure glazing using fully captive backing gaskets to outside of window frame allows windows to be reglazed from the inside.
- Colour coded glazing wedges ranging from 3mm to 7mm in one mm increments.
- Available as internally or externally glazed.
- Easily adapts to ThermAFrame 50mm Commercial Door and Awning Window.

Specifications

- For structural performance refer to the Alspec Technical Manual
- WERS Rated
- Designed and Tested to AS2047

Performance

Serviceability Pressure:	Up to 3200Pa
Ultimate Pressure:	Up to 5700Pa
Water Penetration:	Up to 800Pa
SHGC Range:	0.33 - 0.63
U_w Range:	1.9 - 2.9 $W/m^2 \cdot ^\circ K$



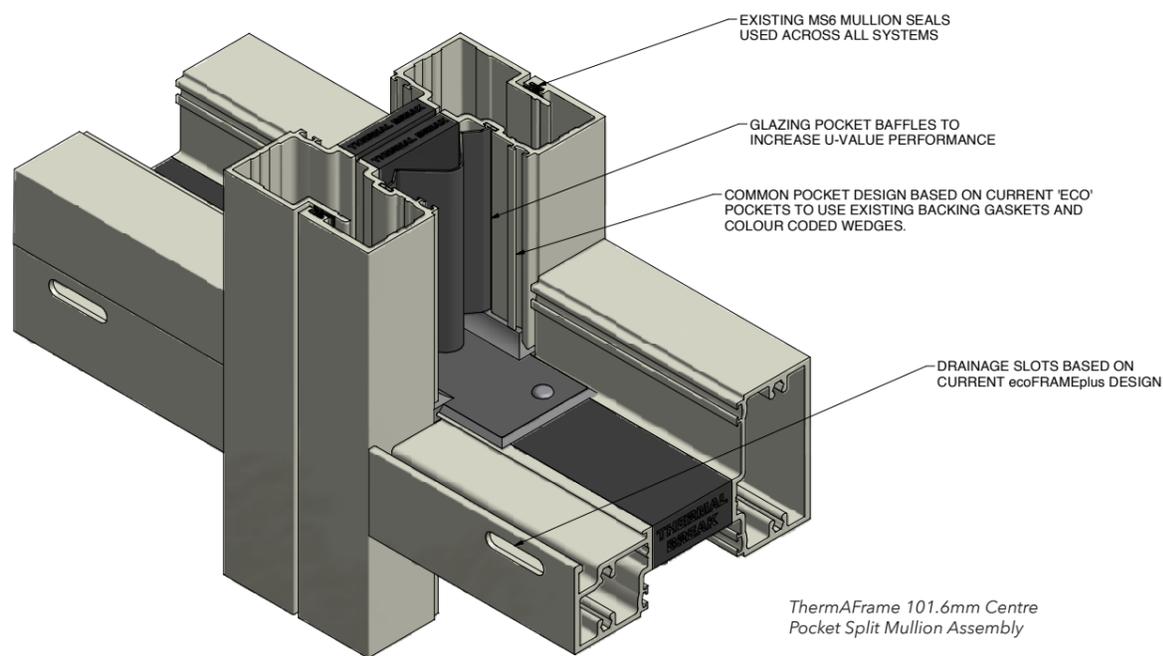
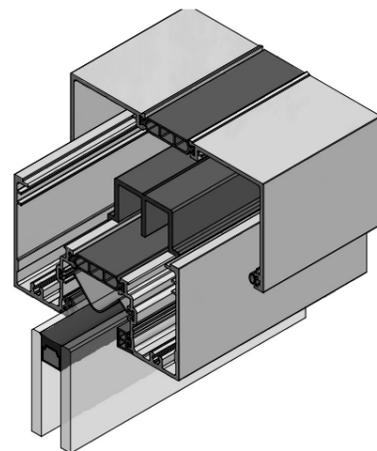
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CENTRE POCKET THERMALLY BROKEN FRAMING

CENTRE POCKET THERMALLY BROKEN FRAMING

Alspec's ThermAFrame Centre Pocket system is a versatile energy efficient Shopfront framing option that utilises the latest in European Polyamide Thermal Break technology combined with Australian design principles to achieve the best possible results in energy rating in a system that is easy to fabricate and install. The systems versatility allows countless specifications to be achieved, from standard shopfront applications, through to the most challenging structural and energy requirements. It has been designed to accommodate high performance double glazed units that can maximise the performance of the building envelope.



Available in two frame depths 101.6mm and 150mm x 60mm, ThermAFrame Centre Pocket allows architects to minimise the transfer of heat or cold across a window with a standard system. Glazing could not be simpler with the colour coded wedges from standard Alspec systems being utilised to deal with the many diverse glass options.

With the use of heavy duty mullions the ThermAFrame 150mm Centre Pocket System can allow heights to reach and surpass 4.5m depending upon wind loading conditions. Subsills are recommended for optimum weathering with all ThermAFrame systems.

Key Features

- Patent Pending Glazing Pocket Design maximises energy performance.
- Patent Pending Glazing Pocket Design allows for insertion of optional accessories to reduce total window U_w values where required.
- Excellent ' U_w ' values down as low as 1.7.
- 101.6mm and 150mm x 60mm Framing System.
- 38mm wide glazing pocket accepts Double glazed options up to 32mm.
- Thermally Broken Sub Framing designed to support heavy double glazed frames.
- Thermally Broken Hinge Door Threshold also available.
- The glazing pockets are designed to allow for the installation of large IGUs and provides the required glass cover to comply with AS1288.
- Secure glazing using fully captive backing gaskets allowing for internal and external glazing.
- Colour coded glazing wedges ranging from 3mm to 7mm in one mm increments.
- Easily adapts to ThermAFrame 50mm Commercial Door and Awning Window.

Specifications

- For structural performance refer to the Alspec Technical Manual
- WERS Rated
- Designed and tested to AS2047

Performance

Serviceability Pressure:	Up to 2950Pa
Ultimate Pressure:	Up to 5700Pa
Water Penetration:	Up to 1000Pa
SHGC Range:	0.33 - 0.63
U_w Range:	1.7 - 2.8 $W/m^2 \cdot ^\circ K$



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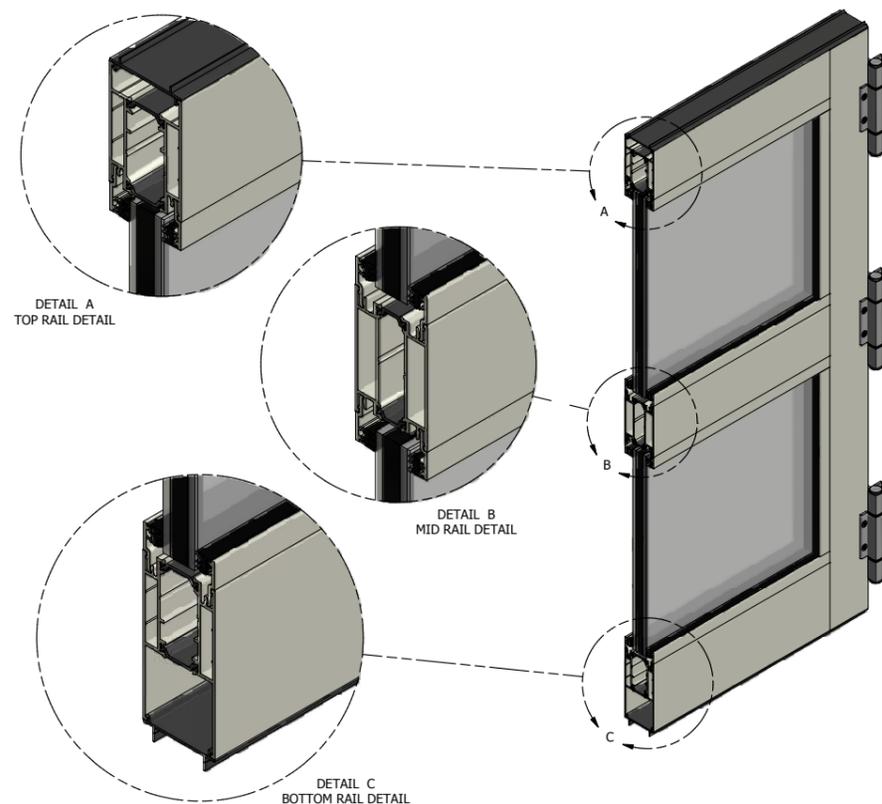
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THERMALLY BROKEN 50mm COMMERCIAL DOOR

THERMALLY BROKEN 50mm COMMERCIAL DOOR

Alspec's ThermAFrame 50mm Commercial Door is an energy efficient option that utilises the latest in European Polyamide Thermal Break technology combined with Australian design principles to achieve the best possible results in energy rating in a system that is easy to fabricate and install. The systems versatility allows seamless integration into ThermAFrame Centre Pocket and Flush Glazed Systems to achieve the most challenging structural and energy requirements. It has been designed to accommodate high performance double glazed units that can maximise the performance of the building envelope.

Available in a 50mm Door width featuring a 'double wishbone' Thermal Break design the ThermAFrame Commercial Door allows architects to minimise the transfer of heat or cold across a Door with a standard system.

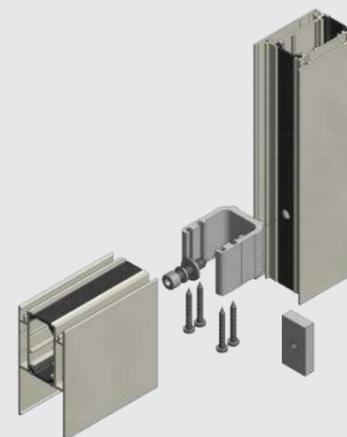


Glazing could not be simpler with the colour coded wedges from standard Alspec systems being utilised to deal with the many diverse glass options.

Featuring optional top and bottom seals for increased performance the ThermAFrame Commercial Door is the preferred choice where superior weather performance is required. A range of glass thickness options up to 32mm allows the system to be configured for excellent thermal and acoustic performance. The system is complemented with proprietary Heavy Duty Aluminium Hinges to ensure maximum performance with large, heavy IGUs. Sashes can be fitted with most standard locking options.

Key Features

- Excellent 'Uw' values down as low as 2.3.
- Utilises a strong 'Double Strut' thermal break construction for maximum strength in the door panel.
- 38mm wide glazing pocket accepts double beaded rolls in both sides.
- Colour coded glazing wedges ranging from 3mm to 7mm in one mm increments.
- Heavy Duty Aluminium Hinges designed for use with the system.
- Stronger sash achieved through the use of custom designed corner clamp spigot.



- Door can be installed as either Hinged, Pivot or Sliding.
- Integrates with ThermAFrame Centre Pocket and Flush Glazed Systems.

Specifications

- For structural performance refer to the Alspec Technical Manual
- WERS Rated
- Designed and tested to AS2047

Performance

Serviceability Pressure:	Up to 1400Pa
Ultimate Pressure:	Up to 3000Pa
SHGC Range:	0.24 - 0.44
Uw Range:	2.3 - 3.2 W/m ² ·°K



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