



All SEASONS™ Aluminium Joinery

For Healthy Homes



 **altus**
Window Systems

Healthy homes for AllSeasons™

AI | **SEASONS™**

When building or renovating, most New Zealand home-owners are now enjoying the benefits of double-glazed windows and doors. But to get the maximum advantage from your double-glazing – and the full return on your investment – you also need to know about thermal break joinery.

What is a thermal break?

Put simply, a thermal break extends the benefits of double-glazing to the frames of your windows and doors. Just as double-glazing prevents warmth or coldness escaping through the glass, the thermal break does the same for your joinery.

The thermal break provides added insulation for your windows and doors



At a glance

- A home that's warmer in winter, and cooler in summer
- A more comfortable, healthier environment
- Reduced condensation
- Energy savings
- Improved weather tightness

For a future-proofed home

We all want to choose the best building materials for our home – for the health and comfort of our family, for the energy savings we make, and for the environment. Choosing thermal break aluminium joinery is a sign of a truly future-proofed home.

This brochure tells you more about the benefits of thermal break joinery, and the superior advantages of our AllSeasons™ range.







At a glance

- Increases your home's R value by over 100% on standard double glazing
- Easier to maintain the optimal 'healthy home' temperature
- Significant energy savings

For a healthier home



According to health experts, the ideal temperature for a healthy home is around 18 degrees celsius. Making your home thermally efficient – by choosing the right building products – is the key to achieving this. You'll find it easier to heat or cool your home to this optimal temperature.

We've called our joinery range 'AllSeasons™' because it helps to keep your home more comfortable, any time of the year.

Year-round comfort

In winter, it helps to prevent the coldness coming inside – or the warmth escaping – via your windows and doors. It works the same way in summer, by keeping the air cooler inside. So, whatever the weather is doing outside, you'll find it easier to set just the right temperature indoors.

Reduce condensation

Even with double-glazing, condensation can still form on joinery and edges of the glass if there's no thermal break. With AllSeasons™, you'll have maximum protection against condensation, for a drier and healthier home.

Energy savings

The R value is the measure of how well a product insulates. By combining your standard clear double-glazing with AllSeasons™ aluminium framing, you'll increase your windows R value by 35%. (This increases to 108% if your double-glazing has Low-E and Argon gas).





At a glance

- Unique AllSeasons™ system can produce larger windows and doors than alternative systems
- Attractive, modern square profile
- Suits extra high wind zones

Strength with style



AllSeasons™ differs from other thermally broken products available in New Zealand in that it is made using the 'Pour & Debridge' manufacturing method. This method involves the filling of a channel designed into the extrusion with a resin, then the milling out of the back of the channel to create a 5mm break in the aluminium.

This method has a number of differences to the 'Polyamide Strip' method (this involves joining 2 extrusions together using a 10mm+ polyamide strip which is crimped to each of the frames) which is the alternative system offered in New Zealand.

Our framing is built to suit larger windows and doors, making it the ideal product for creating superb indoor-outdoor flow.

Larger frames

AllSeasons™ can be used for windows and doors of larger configurations (e.g doors of up to 2.7m).

Stylish square profile

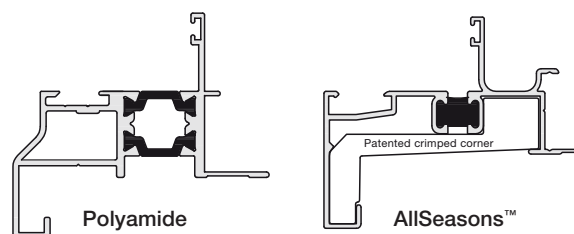
AllSeasons™ framing has a sleek square profile, not rounded, to suit modern architectural aesthetics.

Ideal for any climate

AllSeasons™ is strong enough for all climatic conditions, including "extra high" wind zones.

Up to 30mm DGUs

Our frames can accommodate any width of DGUs (Double Glazing Units), up to 30mm.



With AllSeasons™ pour and debridge, a channel designed into the extrusion is filled with a resin, then milled to create a break.



Built smarter



Most home-owners are concerned about weather protection, and want to know their new home will have protection for a lifetime.

When you choose AllSeasons™ aluminium joinery, you're also choosing peace of mind.

That's because AllSeasons™ is manufactured with the Altus Window Systems patented connection systems – designed to provide a more secure, more weathertight frame.

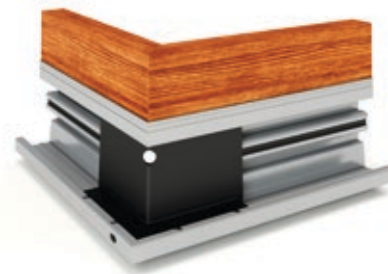
Features unique to Altus Window Systems include, joints that are stronger and tighter, which prevents water entering the joinery. Controlled drainage paths also direct water away from your home. Our patented connection system doesn't require us to drill holes in frames which maintains the integrity of the joinery.

AllSeasons™ range includes:

- Windows (awning and casement)
- Stacker and sliding doors and windows
- Hinged doors
- Bi-fold windows and doors



Patented mullion connection system



Patented crimped corner connection system





At a glance

- Stronger and tighter joints
- Controlled drainage paths to direct water away
- No frame penetrations where leaks can originate

Structural strength

Structural integrity allows a product to maintain its original performance throughout its life. This is particularly important in extreme climatic conditions, such as very high or extra high winds.

Shear resistance measures the product's ability to maintain its composite structure when force is applied. AllSeasons™ has three times the shear strength of polyamide products. It also has a high elongation (65%), which reflects structural strength through its ability to bend without breaking.

As this table shows, AllSeasons™ has strength implications when compared to other polyamide products in its ability to maintain the composite structure.

Structural Strength	Structural Polyurethane (AllSeasons™)		Polyamide	
	SI	IP	SI	IP
Shear Strength (AAMA TIR-A8) 100 mm	12,000 N	2500 lbf	3700 N	820lbf
Elongation (ASTM D 638)	65%		8%	

Thermal Performance

R Value is the value of thermal resistance of a building element. The higher the value, the greater the insulation properties.

This table shows the increases in R Value gained by combining AllSeasons™ joinery with different glazing options, compared to a standard aluminium frame in a typical NZ environment.

R Value	WERS Std Aluminium Frame	AllSeasons™ Thermally Broken Frame	% Increase in R value /standard
Single Glazing	0.15		
Std Double Glazing	0.26	0.35	35%
Low E + Argon	0.32	0.54	108%

Awning Window



- Fixed glazing, IGUs up to 30mm
- Flush external sash appearance
- Sashes: IGUs up to 24mm
- Crimped corners (patented system)

Sliding Door / Window



- Panel sizes up to 2700h
- External slider rollers carry 220kg
- Panels: IGUs up to 24mm
- Stacker and multi-stacking options

Hinged Door



- Panels IGUs up to 30mm
- Flush beaded appearance

Bifold Door / Window



- 50mm panel width
- Panel sizes up to 2400h x 850w
- Flush beaded appearance
- Panel weights of 60kgs

To find out more:

0800 55 11 00

altuswindows.co.nz

 **altus**
Window Systems





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