

04



APRIL NEWS:

It's April and we're ready set games as the Gold Coast hosts the Commonwealth Games! (GC2018) will be staged from 4 to 15 April 2018, and will be the largest and most exciting event the Gold Coast has ever hosted and the largest event in Australia for a decade. The Wintec Team has put steps in place to insure all orders will be dispatched on time. As always - we love hearing from you! If you have any questions, feedback, testimonials or photos, please don't hesitate to contact us.

THIS MONTH IN WINTEC NEWS:

- 1 Staff Spotlight (pg 2)
- 2 Feature Product (pg 3-4)
- 3 Now Available (pg 5)
- 4 New Brochure (pg 6)
- 5 Key Message (pg 7-8)



// PHOTOS

We'd love to see your work! If you have any photos of recent projects using our products, please email them to us at:

design@wintecsystems.com.au



// CONTACT

As is the norm with any thriving business, there are often changes with staff and procedures which inevitably result in changes to email addresses, phone numbers etc.. Have we got your current details? We would appreciate your confirmation with your existing details or a follow up with any new changes that may have happened recently. Please send your details to:

sharon@wintecsystems.com.au

GET ACQUAINTED WITH OUR WINTEC SYSTEMS TEAM...



CAMERON WILLIAMS

Cameron has experience in Residential and Commercial Systems from Housing to Hi-Rise, Having been in the Window and Door Industry for over 30 years.

He started as a factory floor worker through to various rolls in management.

He is Certified as a NATA Mechanical Tester and his fabrication background lends itself to be able to assist on assembly and the components required to build Wintec Systems's vast array of products.

With some cad capabilities, he is able to create two dimensional elevation cross sectional drawings for technical assistance.



PATRICK YOUNG

Patrick is a result driven architectural sales and services representative with over 12 years in the windows & doors industry. Patrick is the newest addition to the Wintec team and brings with him his passion and desire to deliver results in technical sales and customer service. He is now looking after the Melbourne/Victoria Region or Wintec fabricators and aims to expand the business to the next level. He is reputable and committed to providing the best advice possible promptly and in an efficient professional manner. His genuine interest and knowledge in the industry will benefit our Wintec customers, invite new business and strengthen existing relationships.

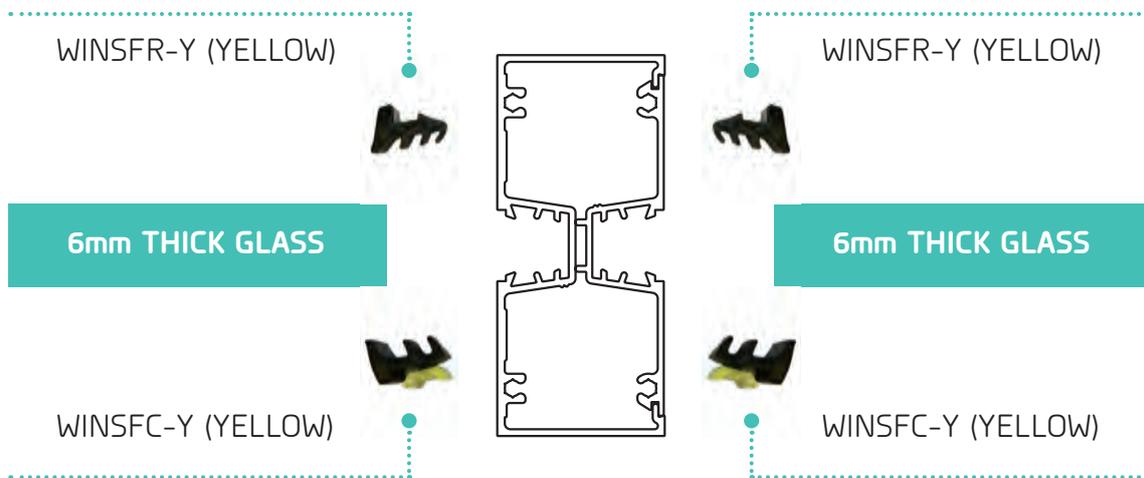
WINTEC SYSTEMS GLAZING WEDGES ARE HIGH PERFORMANCE, CO-EXTRUDED SANTOPRENE AND ARE COLOUR CODED FOR EASY IDENTIFICATION

We have a wide range of roll-in and captive wedges in stock to suit single and double glazed systems from 5mm to 28mm glass (refer to the below table).

Santoprene is the best material available for long-term durability and anti-stretch features.

The co-extrusion backing gives an easy identifier of thickness, when engaging and further enhanced anti-stretch capabilities of the wedges.

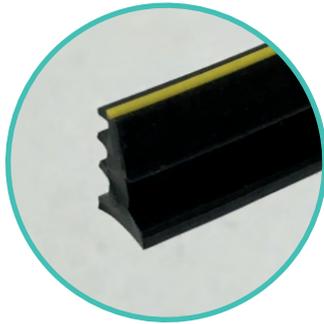
GLASS THICKNESS	ROLL-IN WEDGE	CAPTIVE WEDGE
5mm GLASS	WINSFR-B (BLUE)	WINSFC-Y (YELLOW)
6mm GLASS	WINSFR-Y (YELLOW)	WINSFC-Y (YELLOW)
8mm GLASS	WINSFR-W (WHITE)	WINSFC-R (RED)
10mm GLASS	WINSFR-R (RED)	WINSFC-R (RED)
24mm GLASS	WINSFR-Y (YELLOW)	WINSFC-Y (YELLOW)
28mm GLASS	WINSFR-R (RED)	WINSFC-R (RED)



NOTE: Typical Example



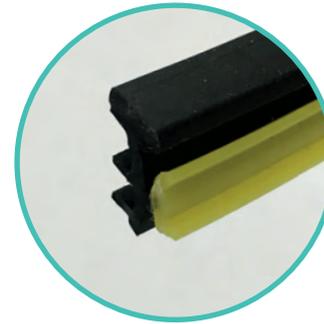
WINTEC SYSTEMS - COLOUR CODED GLAZING WEDGES



WINSFR-Y

ROLL-IN WEDGE
YELLOW

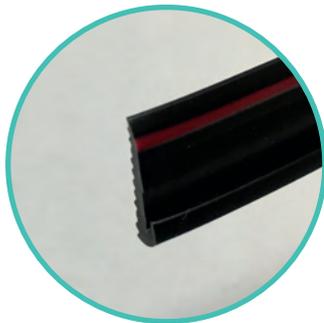
- Available in a 200m roll
- Cost: \$66.00 + GST



WINSFC-Y

CAPTIVE WEDGE
YELLOW

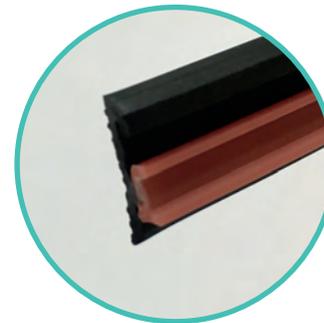
- Available in a 100m roll
- Cost: \$55.00 + GST



WINSFR-R

ROLL-IN WEDGE
RED

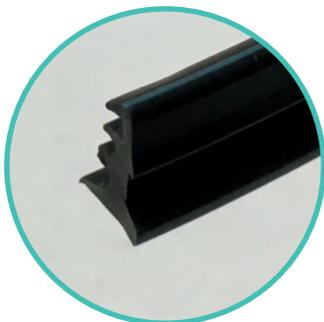
- Available in a 200m roll
- Cost: \$52.25 + GST



WINSFC-R

CAPTIVE WEDGE
RED

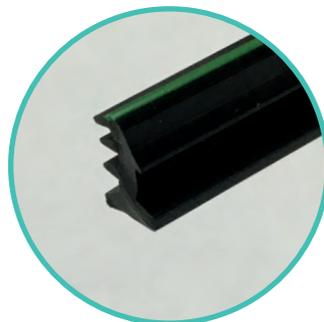
- Available in a 200m roll
- Cost: \$93.50 + GST



WINSFR-B

ROLL-IN WEDGE
BLUE

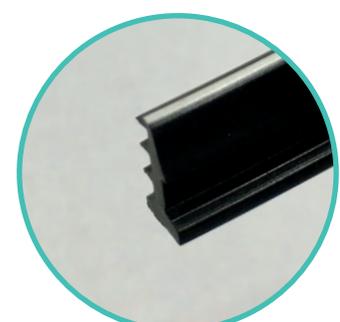
- Available in a 200m roll
- Cost: \$89.38 + GST



WINSFR-G

ROLL-IN WEDGE
GREEN

- Available in a 200m roll
- Cost: \$48.13 + GST

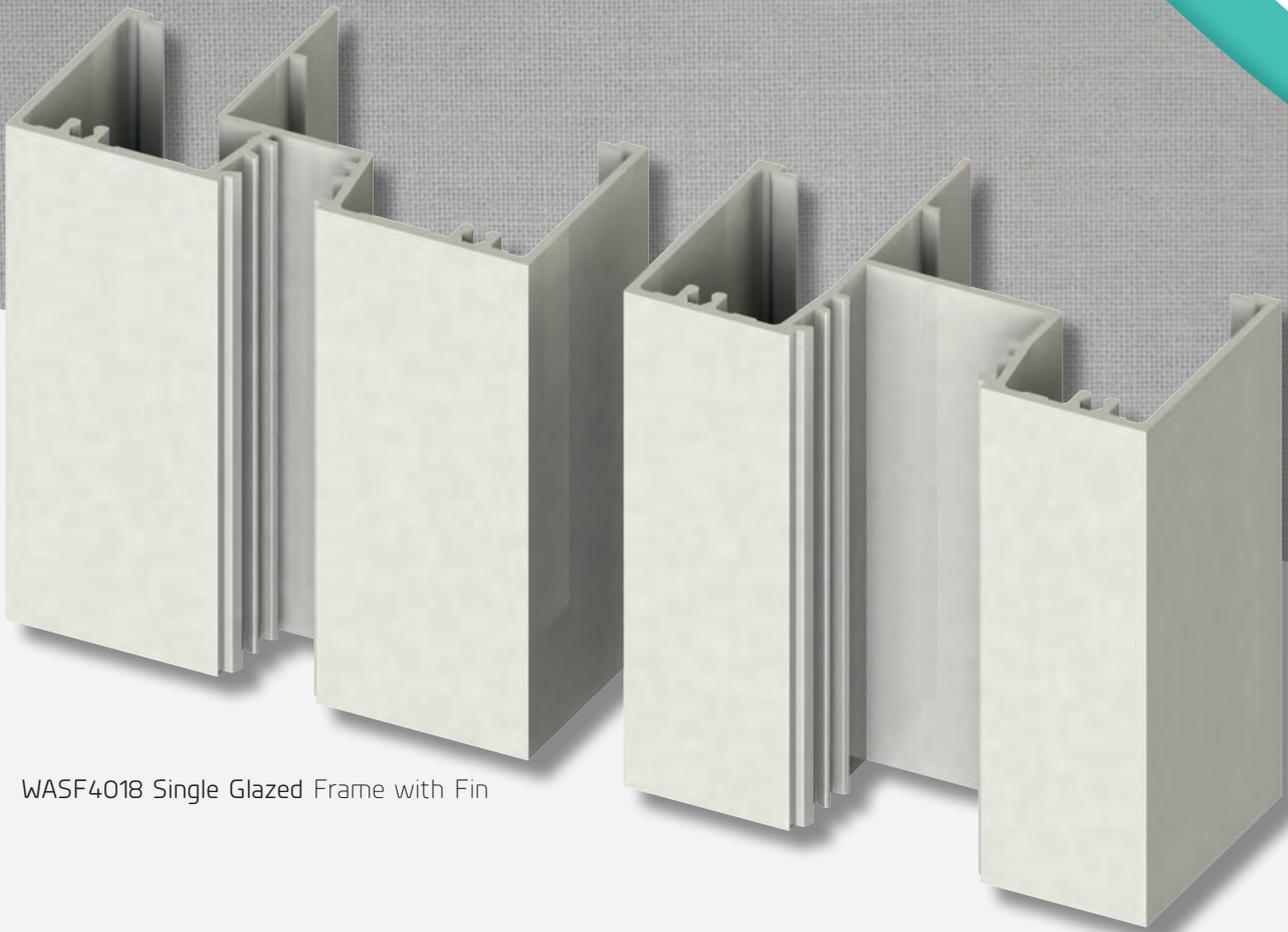


WINSFR-W

ROLL-IN WEDGE
WHITE

- Available in a 200m roll
- Cost: \$72.88 + GST

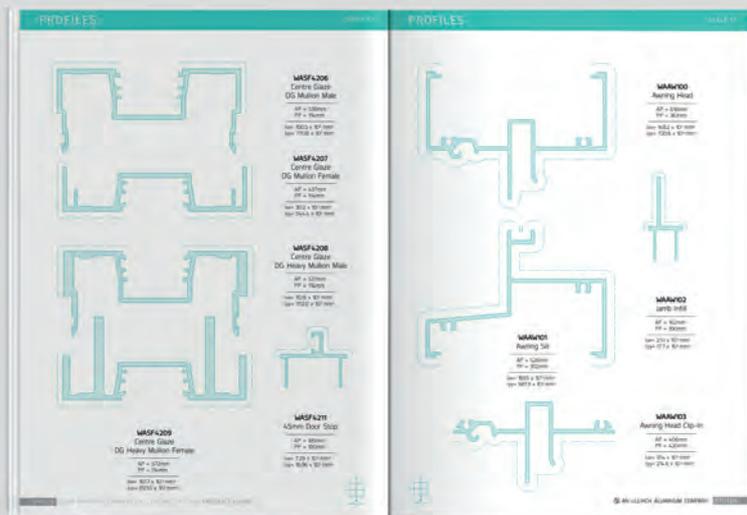
NOW AVAILABLE



WASF4018 Single Glazed Frame with Fin

WASF4218 Double Glazed Frame with Fin

PLEASE NOTE: Colour is for illustrative purposes only, Contact your local Ullrich Aluminium Branch for colour availability.



MULLION PERFORMANCE CHARTS

These values are based on theoretical values and mechanical properties. Not an operational chart as specified by BS2774.

Where the ultimate load does not exceed the design load (BS2774). Please consult other factors for advice.

(*) Sustainability data with primary G = 100% (see table with primary)

MULLION SPECIFIC CHARTS

MULLION PRESSURE (kPa)

Profile	Span	Wind	Temp	Wind	Temp	Wind	Temp	Wind	Temp
MASF206	902	10	10	10	10	10	10	10	10
MASF207	902	10	10	10	10	10	10	10	10
MASF208	902	10	10	10	10	10	10	10	10
MASF209	902	10	10	10	10	10	10	10	10
MASF211	902	10	10	10	10	10	10	10	10

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MASF208	902	10	10	10	10	10	10	10	10
MASF209	902	10	10	10	10	10	10	10	10
MASF211	902	10	10	10	10	10	10	10	10



The new and improved 2018 Commercial Glazing Fabrication Reference is also newly available and will be on its way to you this month. It not only features a stylish face-lift with our new branding and aesthetics, but the performance data on all of our commercial profiles including a mullion span guide. The brochures are printed on a premium matt laminate stock to ensure quality and durability.





KEY MESSAGE

WIND LOADS FOR RESIDENTIAL AND COMMERCIAL BUILDINGS

AS 2047:2014 sets out the performance criteria for all windows in all buildings. These requirements fall into two categories based on building type and purpose:

- Clause 2.3.1 Housing
- Clause 2.3.2 Residential and Commercial

The purpose of this Key Message is to provide general information about wind load requirements for windows in residential and commercial buildings.

ABOUT WIND LOADS

All buildings are subject to the elements of extreme weather which includes high wind speeds. **Wind loads on buildings can be substantial and in many cases will act as one of the most significant forces that the building will be subjected to.**

Wind load is considered to be a dynamic force as it varies greatly in intensity over time. As wind flows around a building, it exerts high pressure on the windward face and low pressure (suction) on the leeward face. Leading edges (corners) experience the greatest force due to wind acceleration.

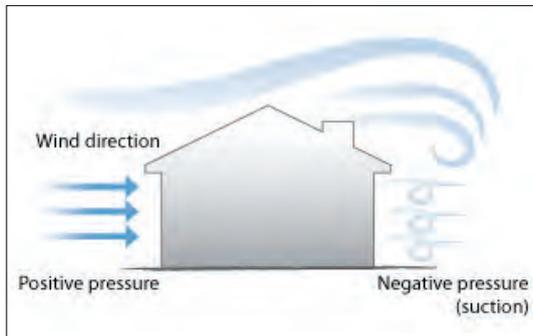


Figure 1 Airflow over a House

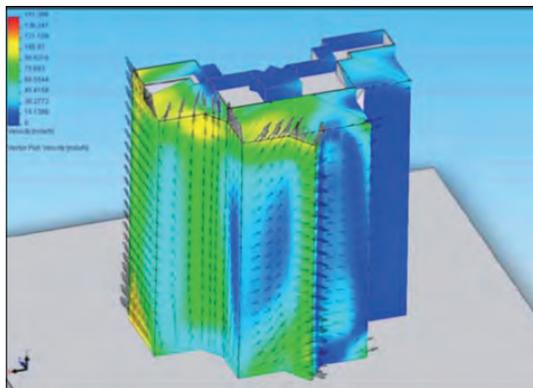


Figure 2 Modelling Wind Loads

WIND SPEED AND WIND PRESSURE

Wind speed and wind pressure are closely related, but are not the same.

Wind speed is an expression of the velocity of the air moving past a stationary object. It is most commonly measured in metres per second (m/s).

Site wind speeds are derived from recorded regional wind speed data, the local effects of terrain (height, topography and shielding) and the relevant annual probability of exceedance. Site wind speeds are the predicted speed of wind over the building site, and are determined without consideration of the effects of the building itself (ie calculated as if the building does not exist).

Wind pressure is the force per unit area exerted over a structure by moving air. The pressure varies with the velocity of the air (both wind speed and direction) and the aerodynamic shape and orientation of the structure. Different parts of the same building experience different wind pressures given the same site wind speed.

Differential wind pressure is the difference in pressure between the inside and outside of a building surface (for example, a window). Pressure is measured in pascals (Pa).

REGULATORY REQUIREMENTS

The National Construction Code (NCC) prescribes that a building must perform adequately under all reasonably expected design actions and withstand extreme or frequently repeated design actions, including the effects of wind loads.

The NCC references Australian/New Zealand Standard (AS/NZS) 1170.2 Structural Design Actions – Part 2 Wind Actions as the primary engineering standard used in the design of buildings to resist wind actions and applies to all buildings constructed in Australia.

Volume 2 of the NCC (Class 1 and 10 buildings) also references AS 4055 Wind Loads for Housing which provides a simplified set of requirements specifically for houses that meet certain geometric limitations. House sites are categorised into six non-cyclonic regions





KEY MESSAGE

WIND LOADS FOR RESIDENTIAL AND COMMERCIAL BUILDINGS

(N-ratings) and four cyclonic regions (C-ratings) based on geographic location, topography and the affects of shielding. For more information, refer to [Key Message - Guide to Housing](#).

For all other buildings, Clause 2.3.2 of AS 2047 requires that design wind pressures should be determined in accordance with AS/NZS 1170.2.

DETERMINING WIND LOADS

The calculation of the correct wind load for a particular part of a building is both critical and complex. Precise calculation of the relevant forces is required to determine the strength and structural robustness of all building elements (including windows and doors) and must be carried out by a suitably qualified person (builder, engineer or architect) during the design stage.

Excerpt from AS/NZS 1170.2

1.4 DETERMINATION OF WIND ACTIONS

Values of wind actions (W) for use in design shall be established. The values shall be appropriate for the type of structure or structural element, its intended use, design working life and exposure to wind action.

The following wind actions, determined in accordance with this standard (using the procedures detailed in Section 2 and the values given in the remaining sections), shall be deemed to comply with the requirements of this Clause:

- (a) W_u determined using a regional wind speed appropriate to the annual probability of exceedance (P) specified for **ultimate limit states** as given in AS/NZS 1170.0, or the Building Code of Australia.
- (b) W_s determined using a regional wind speed appropriate to the annual probability of exceedance for the **serviceability limit states**.

This clause shows that the expression of wind loads in terms of wind speed only are inappropriate.

Wind loads must be expressed for both Ultimate Limit State (ULS) pressures and Serviceability Limit State (SLS) pressures for all building elements including windows and doors.

IMPORTANT NOTE:

It is not appropriate to specify an N or C rating on any building other than a house within the geometric limitations prescribed by AS 4055.

QUICK FACT

In accordance with AS 2047, Water Penetration Resistance (WPR) for windows and doors must be specified as no less than 30 per cent of the positive Serviceability Limit State.

RESPONSIBILITIES

The responsibilities for determining wind loads and compliance are set out in AS 2047.

Excerpt from Appendix C AS 2047:2014

Nomination of window ratings or design wind pressures for each window and door assembly should be as follows:

- (a) For housing, the purchaser should nominate
 - (i) the window rating;
 - (ii) the window exposure classification; and
 - (iii) whether the window is a corner window when ordering the window assemblies.
- (b) For other residential buildings, the purchaser should nominate the design wind pressures when ordering the window assemblies.
- (c) For commercial buildings, the purchaser should nominate the design wind pressures for the window assemblies when ordering the windows.
- (d) The manufacturer of the window assemblies should verify the window assemblies meet the window rating or design wind pressures as provided by the purchaser.

DISCLAIMER

This Key Message has been developed to provide general guidance, awareness and education to AWA members only. It should not be viewed as a definitive guide and should be read in conjunction with the relevant regulations and standards. While every effort has been made to ensure the information is accurate the AWA expressly disclaims all and any liability to any person for anything done in reliance on this publication. No responsibility is accepted by the AWA for any mistakes, errors or omissions in this publication.



