



The best of both worlds: energy efficient hardwood windows and doors with low maintenance exterior aluminium cladding. Made in Australia from plantation grown Victorian Ash timber and Australian glass with patented German hardware.



Range inclusions

- Internal IV 68mm Victorian Ash frame, external aluminium cladding
- Custom made to almost any size and shape
- Triple glazed with 2x 16mm argon gas filled gap
- Double glazed with 1x 22mm argon gas filled gap
- German hardware fittings
- Pronounced joints
- Timber spray painted with low VOC paints or stains
- Aluminium powder-coated in large range of colours
- Timber and cladding separated by 3mm clip system to stop condensation and subsequent rot
- Noise reduction up to 43dB
- Standard industry warranties apply and 10 years warranty on glass
- Suitable for Passive House
- U-values from a very low 1.0

Available in the range:

Windows: European style tilt & turn, fixed picture, clerestory/tilt, sliding, shapes

Doors: lift-slide sliding, giant lift-slide, stacker sliders, corner lift-slide, bi-fold, French, single hinged glass doors





High performance windows and doors, made in Australia from plantation grown Victorian Ash timber or FSC® certified timber and Australian glass with patented German hardware.



Range inclusions

- Victorian Ash timber or FSC® certified Manilkara
- Custom made to almost any size and shape
- Frame thickness IV 78mm for triple glazed
- Frame thickness IV 68mm for double glazed
- Double glazed with 14-20mm argon filled airgap, depending on glass thickness
- Triple glazed with 2x 12-16mm argon-filled airgap, depending on glass thickness
- German hardware fittings, recessed mounted
- Flat joints
- Spray painted with low VOC paints or stains
- Timely delivery and installer training
- Industry warranties apply and 10 years warranty on glass
- Noise reduction standard 35dB, can be increased up to 45dB
- U-values from a very low 0.8
- Suitable for Passive House

Available in the range:

Windows: European style tilt & turn, fixed picture, clerestory/tilt, sliding, heritage, shapes

Doors: lift-slide sliding, giant lift-slide, stacker sliders, corner lift-slide, bi-fold, French, single hinged glass doors





Superior energy savings in domestic sized windows and doors, made in Australia from plantation grown Victorian Ash timber and Australian glass with patented German hardware.



Range inclusions

- Victorian Ash timber or FSC® certified Manilkara
- Frame thickness: IV 68mm
- Custom made to 2.4m height
- Double glazed with 14-20mm airgap
- German hardware fittings, partly surface mounted
- Pronounced joints
- Spray painted with low VOC paints or stains
- Timely delivery – Installer training
- Standard industry warranties apply and 10 years warranty on glass
- Noise reduction up to 38dB
- U-values from a very low 1.8

Available in the range:

Windows: European style tilt & turn, fixed picture, clerestory/tilt, sliding

Doors: lift-slide sliding, bi-fold, French, single hinged glass doors

Komfortline

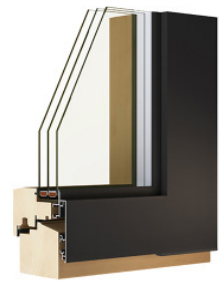
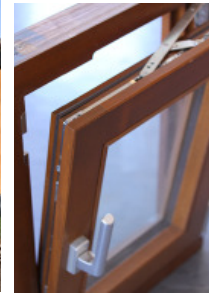
A great way for builders and savvy home owners to add value and achieve superior energy savings with paint-ready windows and doors.

Range inclusions: All inclusions as for Komfort+, however Komfortline is primed only and ready for painting.





Extremely high energy efficiency and very low air infiltration, European style, made in Australia. Choose from Wood-Alu and Architectural Timber windows and doors with triple glazing, soft coat low-E glass and extra seals



Range inclusions

- Custom made to size and shape
- Frame thickness IV 78mm
- Triple glazed Low-E glass with 2x 14mm-16mm argon-filled airgap
- German hardware fittings, extra seals
- Spray painted with low VOC paints or lasur
- Timely delivery – link to installation videos supplied
- Industry warranties apply and 10 years warranty on glass
- Noise reduction up to 43dB
- U-values from a very low 0.8

Available in the range:

Windows: European style tilt & turn, fixed picture, clerestory/tilt, sliding, heritage, shapes

Doors: lift-slide sliding, giant lift-slide, stacker sliders, corner lift-slide, bi-fold, French, single hinged glass doors

Different U-value Certification Calculations

Windows around the world get tested and certified using different criteria. The Australian Fenestration Rating Council (AFRC) uses the North American National Fenestration Rating Council (NFRC) system. Europe uses ISO 10077-2 and ISO 15099, and in addition there is the Passive House Criteria and ift Rosenheim Directive WA15/2.

The important differences between the systems are:

- Boundary conditions
- Calculating solar heat gain (Solar Heat Gain Coefficient (SHGC))
- Methods of accounting for solar glass effects
- Reference sizes
- Installation values

According to the board of the AFRC, the base for a window assessment in Australia is as per ISO-15099. Climate protocol considering local conditions, which are different to the USA, Canada and Europe, must be included. In addition, a much smaller specimen type to that used in Europe is used in Australia as the base of the evaluation.

This gives a different U-value and SHGC to other countries. W/m²-K might be kW, but if other parameters are used the outcome will differ. NATHERS asks for 27 parameters (factors) for input to produce a window rating (this is before the window has been installed).

You can be certain that Australian made Paarhammer products will perform exactly like European imported windows and doors and will reach all Passive House requirements. In addition you will enjoy local backup, service and warranties.





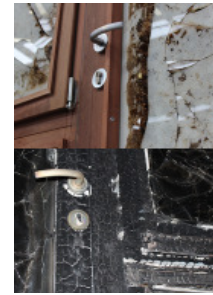
Paarhammer Pty Ltd - continued					Cool %	Heat %	Total Window - AFRC			
Updated 1-May-2019							Uw	SHGC	Tvw	Aif Inf
Window ID	Glazing	Cooling Stars	Heating Stars							
Tilt & Turn Window - Triple Glazed										
PAR-002-01	4/12/3/12/4	★★★★★	★★★★★★★	66%	75%	1.8	0.35	0.38	0.05	
PAR-002-02	4/12Ar/4S500/12Ar/4S500	★★★★★☆	★★★★★★★	71%	76%	1.4	0.31	0.33	0.05	
PAR-002-03	4EG/12Ar/3/12Ar/4S500	★★★★★☆☆	★★★★★★★☆☆	78%	67%	1.5	0.19	0.29	0.05	
PAR-002-04	4SB70XL/12Ar/3/12Ar/4ET	★★★★★★★	★★★★★★★	84%	65%	1.3	0.13	0.28	0.05	
PAR-002-05	4SB70XL/12Ar/3SB70XL/12Ar/4SB70XL	★★★★★★★☆☆	★★★★★★★	85%	65%	1.2	0.11	0.19	0.05	
Scandinavian Fir Fixed Window - Triple Glazed										
PAR-009-01	4/12Ar/3/12Ar/4	★★★★☆	★★★★★★★☆☆	55%	65%	1.7	0.52	0.56	0.05	
PAR-009-02	4PThrm/12Ar/3PThrm/12Ar/4PThrm	★★★★★★★☆☆	★★★★★★★☆☆	79%	58%	0.8	0.23	0.40	0.05	
PAR-009-03	4SB70XL/12Ar/3SB70XL/12Ar/4SB70XL	★★★★★★★	★★★★★★★	83%	52%	0.9	0.16	0.28	0.05	
Bi-Fold Doors - Triple Glazed										
PAR-004-01	4/12/3/12/4	★★★★	★★★★★★★	59%	60%	1.8	0.45	0.49	0.21	
PAR-004-02	4EA/12Ar/3Clr/12Ar/4EA	★★★★★	★★★★★★★	67%	62%	1.2	0.37	0.42	0.21	
PAR-004-03	4SB70XL/12Ar/3/12Ar/4ET	★★★★★★★	★★★★★★★	82%	50%	1.1	0.17	0.36	0.21	
PAR-004-04	4SB70XL/12Ar/3SB70XL/12Ar/4SB70XL	★★★★★★★☆☆	★★★★★★★	84%	49%	1.1	0.14	0.24	0.21	
Scandinavian Fir Bi-Fold Door - Triple Glazed										
PAR-008-01	4SB70XL/12Ar/3SB70XL/12Ar/4SB70XL	★★★★★★★☆☆	★★★★★★★	84%	49%	1.0	0.14	0.24	0.21	
Sliding Door - Triple Glazed										
PAR-006-01	5/12/3/12/5	★★★★	★★★★★★★	60%	60%	1.8	0.45	0.49	0.31	
PAR-006-02	5EA/12Ar/3Clr/12Ar/5EA	★★★★★	★★★★★★★	67%	63%	1.2	0.38	0.43	0.31	
PAR-006-03	4SB70XL/12Ar/3Clr/12Ar/4ET	★★★★★★★	★★★★★★★	82%	50%	1.1	0.17	0.37	0.31	
PAR-006-04	4SB70XL/12Ar/3SB70XL/12Ar/4SB70XL	★★★★★★★	★★★★★★★	84%	49%	1.0	0.15	0.25	0.31	
Scandinavian Fir Sliding Door - Triple Glazed										
PAR-007-01	4SB70XL/12Ar/3SB70XL/12Ar/4SB70XL	★★★★★★★☆☆	★★★★★★★	84%	50%	1.0	0.14	0.25	0.31	
Wood & Aluminium Tilt & Turn Window - Triple Glazed										
PAR-012-001-01	4Clr(VRD)/16Ar/4Clr(VRD)/16Ar/4Clr(VRD)					1.6	0.33	0.35		
PAR-012-002-01	4Clr(VRD)/16Ar/4Clr(VRD)/16Ar/4LightBridge(#5)					1.3	0.26	0.34		
PAR-012-003-01	4Clr(VRD)/16Ar/4LightBridge(#3)/16Ar/4LightBridge(#5)					1.2	0.24	0.34		
Wood & Aluminium Fixed Window - Triple Glazed										
PAR-014-001-01	4Clr(VRD)/16Ar/4Clr(VRD)/16Ar/4Clr(VRD)					1.6	0.47	0.50		
PAR-014-002-01	4Clr(VRD)/16Ar/4Clr(VRD)/16Ar/4LightBridge(#5)					1.2	0.36	0.49		
PAR-014-003-01	4Clr(VRD)/16Ar/4LightBridge(#3)/16Ar/4LightBridge(#5)					1.0	0.34	0.48		

Please note: Star ratings for Wood-Alu products are not yet available from WERS.





Safety for all Bushfire Attack Levels (BAL's), including BAL-FZ, without the need for shutters. Tested, approved, compliant.



Range inclusions

- Custom made, size limitations apply
- Frame made from self-extinguishing, FSC® certified, Manilkara Bidentata
- Double glazed with special fire protection glazing
- German hardware fittings
- Finished with Adler Lignovit Lasur wood preservative, or low VOC spray-painted or stained in the colour of your choice by request
- U-values from a very low 1.4
- Ember / flyscreens for all windows as per Australian Standard
- Suitable for Passive House
- Tested, approved and compliant to all relevant Australian Standards
- Compliance certification supplied with windows and doors

Available in the range:

BAL-40 Windows: European style tilt & turn, fixed picture, clerestory/tilt, sliding, shapes

BAL-40 Doors: French, bi-fold and lift-slide doors, single hinged glass doors

BAL-FZ Windows: European style tilt & turn, fixed picture, clerestory/tilt, sliding, shapes

BAL-FZ Doors: French doors, lift-slide doors, single hinged glass doors

-/60/- Party Wall Windows: Fixed panes only for shared or adjoining walls, please contact us for details

