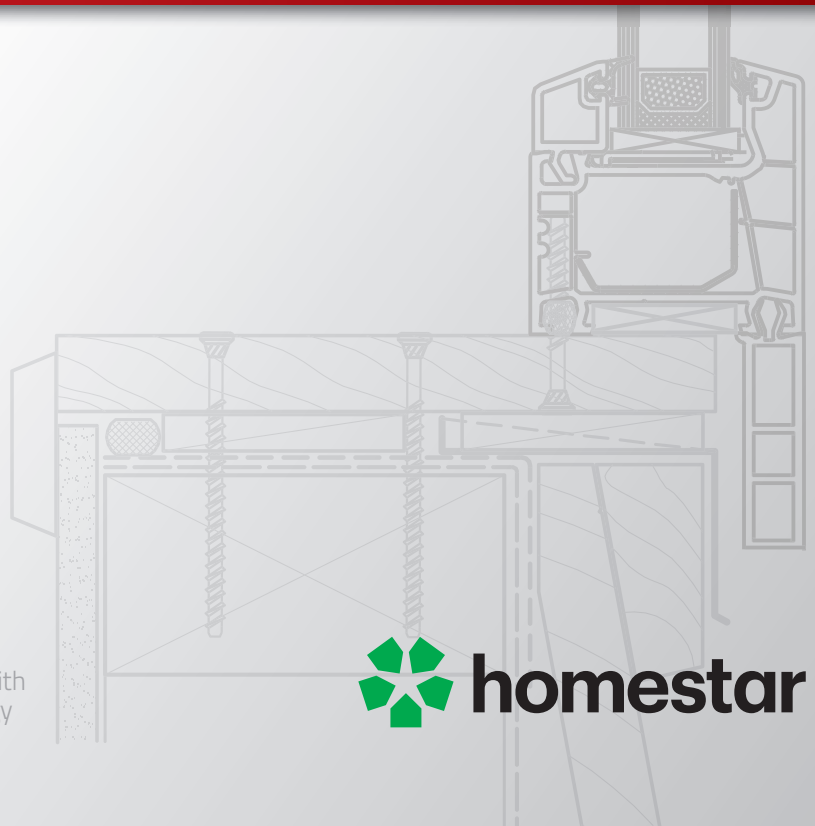


WarmWindows

UPVC Windows & Doors with Double Glazing



Keeping your home warm & quiet




aluplast[®]
Kunststoff-Fenstersysteme

Energy efficient
window & doors with
aluplast-technology

 **homestar**



Rediscover the comfort of your home

Useful Information about UPVC

Warmer

In a typical New Zealand house more than 50% of heat loss can come from single glazed windows. With quality UPVC double glazed windows you can cut down that heat loss to only 10%. The key feature in achieving such an outstanding performance is the Warm Windows UPVC Joinery. Our windows with R-Value of 0.41 will allow you to use energy more efficiently, cutting down those increasing power bills and keeping your place warm and dry.

Drier

Many New Zealand homes suffer from mould and moisture as a result of condensation. Mould is terribly unhealthy, and causes permanent damage to the houses internal components as well as decreases its market value. Mould spores can deposit on the lining of the nose and cause hay fever symptoms and several respiratory diseases. Warm Windows are made from high quality German UPVC profile and unlike metal it does not conduct heat or cold. There is an effective drainage system that allows water to escape away. Combined with our insulated double glazed units the condensation can be eliminated. The result is a dry, mould free and healthy home.

Quieter

Are you tired of that loud noise from outside? Does it prevent you and your children from sleeping at night? With Warm Windows you can silence the noise by 80% (compared to single glazing). Double glazing is a powerful barrier against noise, but it works best with UPVC profile. Imagine all the noise from that busy road and those loud neighbours gone. Turn your home into a comfortable and quiet place where you can enjoy life. Special high performance sound reducing packages available for sound studios. Warm Windows recently installed sound barriers (French doors and T&T window) in Joel Haines Music studio with outstanding results. www.joelhaines.co.nz

Secure

Home security provides a great benefit - peace of mind. To feel safe at home is very important to every family. That is why we put multi-point locking systems in all of our windows and doors. With the multi-point locking system each door and window in your house will have multiple locks holding them in place, locking the sashes from each side, making every window and door much more secure.



10 Things You Must Know About Our Windows and Doors

1. UPVC Joinery Has The Performance

With our German UPVC profile you can be confident that the Windows and Doors in your home have the top performance on the market. Dramatic decrease in condensation, reduction of noise, outstanding insulation and incredible R-value of 0.41 – that's 25% more than thermally broken aluminum DGU at 0.31 and 63% better than standard residential suite. These are common characteristics of quality UPVC profile. Warm Windows has the performance, it's in a class of its own, that's why more than 80% of homes in Europe use UPVC joinery.

2. Incredible Value and Return on Your Investment

Would you like to get the best returns on your hard earned investment? UPVC windows with double glazing will increase the value of your property. According to the building regulations in NZ, all new buildings starting from August 2008, must be equipped with a double glazing system. Potential owners looking to buy a house will have double glazing high on their requirements list, making a house with UPVC double glazed system easier to sell for more, putting a better margin in your pocket.

3. Security

Home security provides a great benefit – peace of mind. Being able to feel relaxed sleeping at night, or feel confident about leaving the house for a holiday, is possible thanks to the latest advancements in security technology. That is why our hardware options incorporate an advanced Multi-Point Locking System and super spacer with double glazing. Warm Windows are also fully compatible with most electronic alarms. Warm Windows are secure so that we are confident that our clients and things they love are well protected.

4. Energy Efficiency

By making the best of the available heat, Warm Windows will make your house much more energy efficient. Cutting down the heat loss from 50% (single glazing) to only 10% (standard UPVC DGU) is an amazing feat. If that is not enough, you have an option of installing a triple glazed unit with argon and Low-E glass, which is second to none in heat retaining capabilities.

5. Maintenance Free Windows That Save You Time

UPVC joinery requires very little in the way of maintenance as UPVC frames do not rot, warp or swell. It is designed to enhance your lifestyle and stand up against life's knocks. UPVC joinery is a smart investment that pays off in durability and saves you time.

6. Stays Looking New for Generations

Total corrosion resistance, UV protection with addition of ecologically sound CaZn-stabilizer, highly sophisticated drainage system, quality components and master build quality helps Warm Windows stay operational for generations to come. Warm Windows is a risk-free product. Even our warranty reflects the highest standards of the industry: 15 years on the profile, 10 years on the glazing units and 5 years on the hardware.

7. Environmentally Sustainable

Here is your opportunity to help the environment and build a green, energy efficient house. Warm Windows are environmentally friendly in many ways: they are ecologically clean to manufacture, they are 100% recyclable, as well as extremely durable. Most importantly though, due to the outstanding performance Warm Windows can help you retain the heat inside the house, cut down your power bill and allow you to use energy more efficiently.

8. Safe

Another benefit of UPVC is a healthier environment inside the house. Low condensation allows avoiding excessive moisture and protects the owners from mould infestations. Great insulation properties enable UPVC windows to become a sound barrier, so you can sleep and rest better. Tight seals and no drafts will protect your family from getting a flu. A house with Warm Windows is a healthier house.

9. Painless and Quick Installation

With over 12 years experience in manufacturing UPVC windows and doors and over 2000 completed projects in industrial and residential areas – working with our experienced specialists is a safe bet. You will benefit from our experience by having a fast, high quality and painless installation so you can enjoy the benefits of Warm Windows straight away.

10. Homestar Certification

Contributes credits towards achieving a higher Homestar certification of your home.



Save energy, reduce costs and secure the future

We offer a great variety of customizable options so you can find the combination that strikes your needs the most. Awning, Casement, Bi-folds, Tilt & Slide, Tilt & Turn, Ranch Sliders, French Doors and Parallel Retract Sliders are only some of the construction varieties we have.

All the windows and doors can be manufactured to any required size or shape including - bay windows, arches, triangle windows and top/side beveled windows.

With this many options do not hesitate to discuss your requirements with our friendly team for a free, professional and detailed consultation.





In-line Sliding Windows

Wind Zone: Medium

Sliders are your super cost effective solution, meaning you get outstanding quality and performance for the lowest price.

Sliding Windows are very popular all around the world for their convenience. Sliders are recommended everywhere where inward or outward opening windows are not desired. When the sash is open it slides in to the window and does not take any space inside or outside the living area. This means you can use the area next to the window for anything you like.

The new modern locking mechanism ensures smooth operation, and as a result you can easily operate sliders with one hand. Both of the sashes are able to slide.

Standard Features:

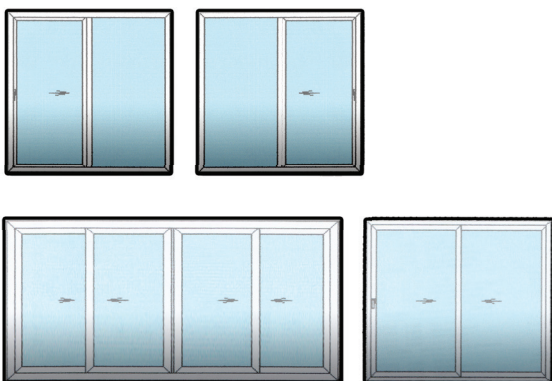
- Fitted with Double Glazing (4/12,7/4)
- Fitted with Warm Edge® Super Spacer®
- Fitted with Clear Glass
- Fitted with Internal Zinc dipped Steel Reinforcement
- Fitted with Liner (Pre-primed, H3 Treated Pine)
- Fitted with Multi-Point Locking System
- Fitted with Slider Hardware
- Fitted with Keyless Handles

Min Size 1.0m wide x 0.6m high

Max Size 5.0m wide x 3.0m high

Additional Options:

- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Key Lock Handles



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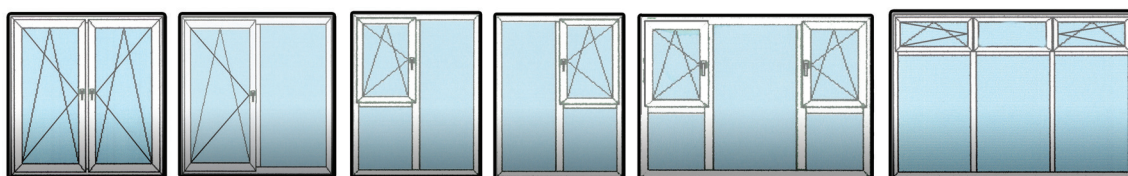


Tilt&Turn Windows – Wind Zone: Very High

Tilt&Turn is your top performance solution, meaning you get outstanding quality, top performance and high-tech hardware for the best price.

The core of every Tilt&Turn is the high-tech internal hardware. It enables effortless turning and tilting of the window sash with a single handle operation. Turn the handle through 90° and the window 'tilts' inwards, hinged at the bottom with a stay at the top to allow a free flow of air for draught-free ventilation. Turn the handle a further 90° and the window 'turns' fully inwards, turning on its side for maximum ventilation, more fresh air and ease of cleaning.

Tilt & Turn is very popular around the globe but especially in Europe, where it is by far the most common type of window. UPVC profile is best suited for Tilt&Turn hardware because it provides the necessary working flexibility for hardware integration. Tilt&Turn is truly convenient while providing the top performance possible with double glazing. Please note that Tilt and Turn windows provide for great escape in case of emergency when conventional ways of exit are not possible.



Standard Features:

- Fitted with Double Glazing (4/12,7/4)
- Fitted with Warm Edge® Super Spacer®
- Fitted with Clear Glass
- Fitted with Internal Zinc dipped Steel Reinforcement
- Fitted with Liner (Pre-primed, H3 Treated Pine)
- Fitted with Multi-Point Locking System
- Fitted with Dual Opening Hardware
- Fitted with Keyless Handles

Min Size 0.5m wide x 0.7m high
Max Size 2.0m wide x 2.5m high

Additional Options:

- Triple Glazing (4/6/4/6/4)
- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Key Lock Handles
- Insect Net





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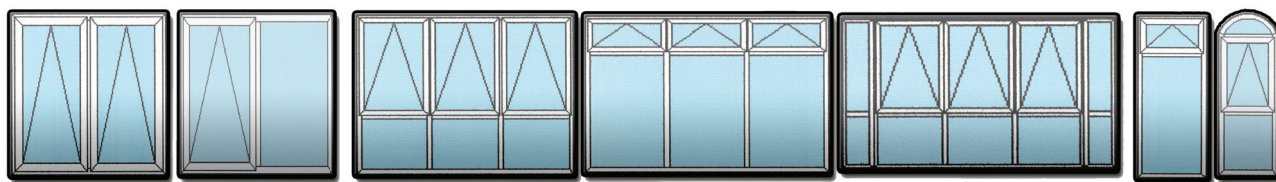
Awning/Top-Hung Windows

Wind Zone: Very High

Awning is your value solution, meaning you get outstanding quality and great performance for less.

At Warm Windows we took New Zealand's favourite window type and made it better. It is still a simple and convenient window with great performance, but now you get it with double glazing, double insulation, multi-point locking system and many other top performance features UPVC is so well-known for.

Awning windows are appreciated for their ability to open outside, away from the living area. The design uses a slim profile which allows for a wider opening and more light coming inside. The window can be opened up to 70° and some cases 90° for ventilation and cleaning. For your convenience we offer an option to install security stays to restrict the opening gap and prevent the wind from shutting the sash or to protect children.



Standard Features:

- Fitted with Double Glazing (4/12,7/4)
- Fitted with Warm Edge® Super Spacer®
- Fitted with Clear Glass
- Fitted with Internal Zinc dipped Steel Reinforcement
- Fitted with Liner (Pre-primed, H3 Treated Pine)
- Fitted with Multi-Point Locking System
- Fitted with Awning Hardware
- Fitted with Stainless Steel Hinges
- Fitted with Keyless Handles

Min Size 0.4m wide x 0.5m high

Max Size 1.2m wide x 1.2m high

Additional Options:

- Triple Glazing (4/6/4/6/4)
- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Key Lock Handles
- Security\Restrictor Stay

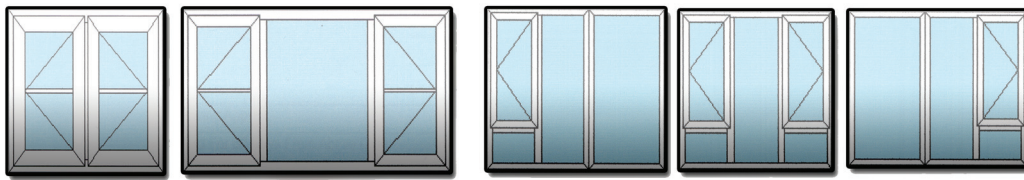
Casement/Side-Hung Windows

Wind Zone: Very High

Casement is your value solution, meaning you get outstanding quality and great performance for less.

The other type of outward opening windows we provide are casement. Casement window, also known as "Side Hung", is very similar to awning, except that it opens vertically. It is still a simple and convenient window with great performance, but now you get it with double glazing, double insulation, multi-point locking system and many other top-performance features UPVC is so well-known for.

Casement windows leave just as much free space on the inside as awning. Their design also uses a slim profile which allows for a wider opening and more light coming inside. With pivot point hinges the casement window can be opened up to 90° for ventilation and cleaning. For your convenience we offer an option to install security stays to restrict the opening gap and prevent the wind from shutting the sash or to protect children.



Standard Features:

- Fitted with Double Glazing (4/12,7/4)
 - Fitted with Warm Edge® Super Spacer®
 - Fitted with Clear Glass
 - Fitted with Internal Zinc dipped Steel Reinforcement
 - Fitted with Liner (Pre-primed, H3 Treated Pine)
 - Fitted with Multi-Point Locking System
 - Fitted with Casement Hardware
 - Fitted with Stainless Steel Hinges
 - Fitted with Keyless Handles
- Min Size 0.4m wide x 0.5m high
Max Size 0.8m wide x 1.5m high

Additional Options:

- Triple Glazing (4/6/4/6/4)
- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Key Lock Handles
- Security\Restrictor Stay

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and facebook

Custom Windows

At Warm Windows we offer to produce a totally custom window for you.

That's right, a totally custom window. It is the right step in the direction of making a house that completely suits your requirements. Maybe your commercial property needs something special. Our Team is here to relieve you of all the technical design aspects and building procedures. Just imagine what you want, and we will get it done.



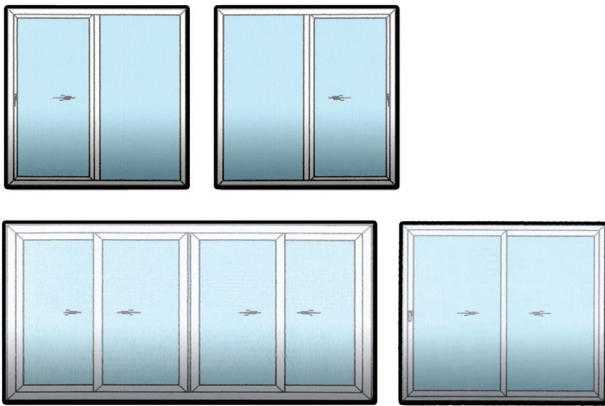
In-line Sliding Doors and Stackers

Wind Zone: Medium

Sliders are your super cost effective solution, meaning you get outstanding quality and performance for the lowest price.

Sliding Doors are very popular all around the world for their convenience. Because they slide together, these doors never take up space around them. Also the design of the sashes creates a wide opening letting a lot of light through into the room.

The new modern locking mechanism ensures smooth operation and as a result you can easily operate sliders with one hand. Framing could be recessed to maximise the indoor – outdoor flow.



Standard Features:

- Fitted with Double Glazing (4/12,7/4)
 - Fitted with Warm Edge® Super Spacer®
 - Fitted with Clear Glass
 - Fitted with Internal Zinc dipped Steel Reinforcement
 - Fitted with Liner (Pre-primed, H3 Treated Pine)
 - Fitted with Multi-Point Locking System
 - Fitted with Slider Door Hardware
 - Fitted with Keyless Handles
- Min Size 1.6m wide x 1.9m high
Max Size 5.0m wide x 3.0m high

Additional Options:

- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Key Lock Handles
- Insect Net





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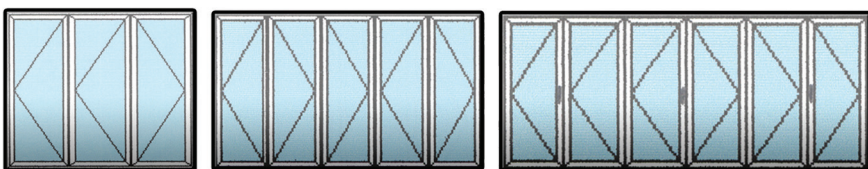
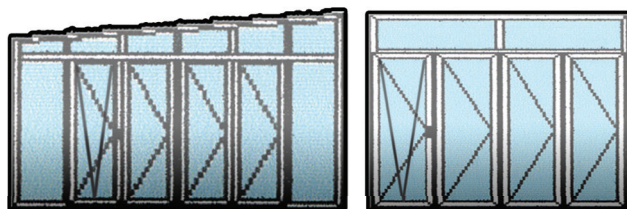
Bi-folding Doors

Wind Zone: Very High

Bi-Folding doors provide ultimate performance and use the most advanced hardware; this is the elite of doors for the best price.

Warm Windows Bi-Folds are the most elegant way to connect indoors with the outdoors. Bi-folding doors are ideal for conservatories, boarding houses, conference rooms and shop entrances. You can achieve a very large opening with Bi-Folds, since folding sashes slide to one side in a tightly compact arrangement.

You can even add a smaller window into the Bi-Fold door for quick ventilation. Bi-folding Sashes can be outward or inward opening for added convenience. Bifold sills could be recessed (subject to wall type) to be in level with floor and have a step of only 25mm.



Standard Features:

- Fitted with Double Glazing (4/12,7/4)
- Fitted with Warm Edge® Super Spacer®
- Fitted with Clear Glass
- Fitted with Internal Zinc dipped Steel Reinforcement
- Fitted with Liner (Pre-primed, H3 Treated Pine)
- Fitted with Multi-Point Locking System
- Fitted with Bi-Fold Hardware
- Fitted with Key Lock Handles
- Min Size 2.0m wide x 2.0m high
- Max Size 7.0m wide x 2.7m high

Additional Options:

- Triple Glazing (4/6/4/6/4)
- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Door Latches

Tilt & Slide Doors

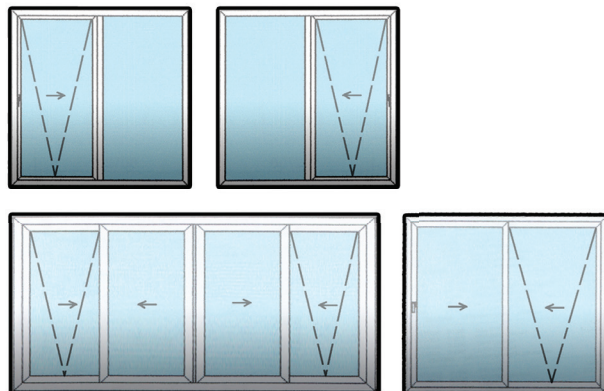
Wind Zone: Very High

Tilt&Slide is your top performance solution, you get outstanding quality, top performance and high-tech hardware for the best price

Tilt&Slide doors combine modern architectural design with open-air living in the form of large door and window areas. Terraces, gardens and balconies are where Tilt&Slide are used the most. The sash slides conveniently and keeps away from the living area's space.

Warm Windows Tilt&Slide doors are based on the effective and successful principle of lift, slide and lower. Lift-Sliding designs are extraordinarily smooth to operate. Even the largest doors can be opened and moved effortlessly at the turn of a handle. The door could be locked in tilt position providing secure ventilation.

The sash can be lowered and held in position at any angle from a tiny gap to wide open to suit individual needs.



Standard Features:

- Fitted with Double Glazing (4/12, 7/4)
 - Fitted with Warm Edge® Super Spacer®
 - Fitted with Clear Glass
 - Fitted with Internal Zinc dipped Steel Reinforcement
 - Fitted with Liner (Pre-primed, H3 Treated Pine)
 - Fitted with Multi-Point Locking System
 - Fitted with Tilt & Slide Hardware
 - Fitted with Keyless Handles
- Min Size 1.8m wide x 2.0m high
Max Size 6.0m wide x 2.7m high

Additional Options:

- Triple Glazing (4/6/4/6/4)
- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Key Lock Handles



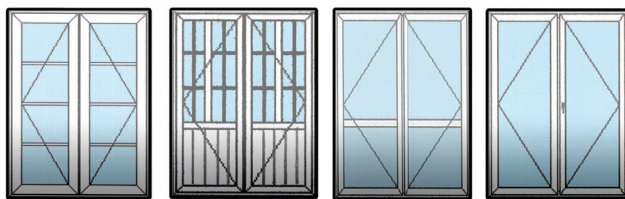


French Doors

Wind Zone: Very High

French Doors are your value solution, meaning you get outstanding quality and great performance for less.

French Doors will give your house a whole new look. Durable, elegant, safe and beautiful, French Doors are very convenient and also make your rooms feel more spacious. By design French Doors are joined in pairs and open together to create a large opening. Even with the doors closed they still offer a lovely view outside through combinations of window paneling. With French Doors your house will always be full of light. Everyone loves them because they add that exclusive feel to your house.



Standard Features:

- Fitted with Double Glazing (4/12,7/4)
 - Fitted with Warm Edge® Super Spacer®
 - Fitted with Clear Glass
 - Fitted with Internal Zinc dipped Steel Reinforcement
 - Fitted with Liner (Pre-primed, H3 Treated Pine)
 - Fitted with Multi-Point Locking System
 - Fitted with French Door Hardware
 - Fitted with Key Lock Handles
- Min Size 1.4m wide x 1.8m high
Max Size 1.9m wide x 2.7m

Additional Options:

- Triple Glazing (4/6/4/6/4)
- Low-E Glass
- Argon
- Lamination Options (white, golden oak, green)
- Glass Options (tinted, toughened, reflective, obscure etc.)
- Liner Options (Rimu or other up to 290mm)
- Dead Bolts
- Door Latches
- Slave sash handle



Entrance Doors

Does your entrance door give a proper welcome? It is very important to have a great looking entrance door since it creates the first impression and makes your property look welcoming.

Whether it is a minimalistic or modern style - design of the Entrance door always comes down to your own personal preference.

With all the options we have to offer at Warm Windows you can truly create a unique design for your entrance. Leave all the manufacturing hassles to us and enjoy your tailor-made, personalised Entrance Door.



Passive House certified fenestration

The most recent project completed by Warm Windows is Ideal house, located in Beachlands. More information about this project can be found at Idealhouse.org. To meet the requirements of the Passivhaus standard, windows must comply with certain performance criteria:

- The installed windows must have airtightness below 0.6 air changes per hour at 50Pa pressure differential. This is tested insitu through the use of a blower door machine.
- The windows when installed must not have any cold spots less than 17 deg C when the outdoor temperature is -3 deg and indoor air temperature is 20 deg.
- Glazing U-Value is no less than 1.30

These normally combine triple-pane insulated glazing (with a good solar heat-gain coefficient, low-emissivity coatings (low-e glass), sealed argon gas filled inter-pane voids, and 'warm edge' insulating glass spacers) with air-seals and specially developed thermally efficient window frames.

To meet these requirements Warm Windows supplied UPVC joinery with the following characteristics:

Frames:

Aluplast GmbH Ideal 8000

- 6-chamber profile with external flange sub frame and liner
- Centre gasket system with three sealing levels

Glazing

ClimaGuard Solar 67/27

- Triple glazed insulated glass units
- 4 Low-e / 12.7 / 4 Low-e / 9mm / 4 Clear
- Warm Edge Super Spacer
- Combination of various shapes and sizes, from 500x500 to 2010 x 2060

Hardware

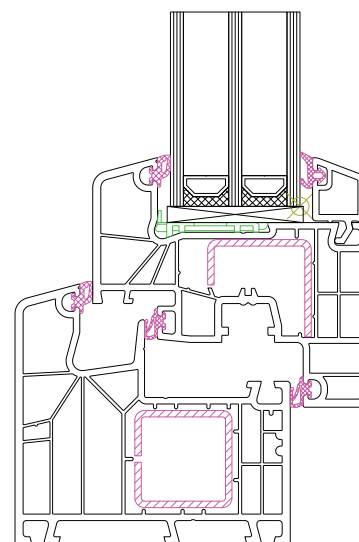
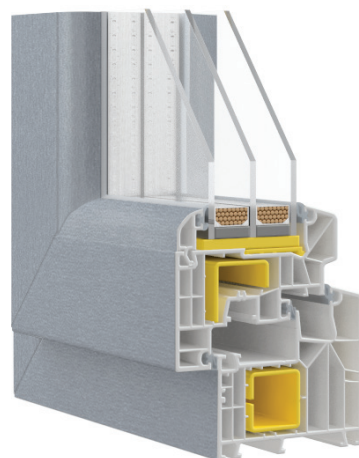
Tilt and turn and hinged doors.

- Dr. Hahn Hinges capable of carrying the load of 250kg each, Germany
- State of the art Tilt and Turn hardware by Winkhaus activPilot, Germany
- Anti-hijacking HOPPE Secustik® handles, Germany
- Steel reinforcements inside the profiles ensure stability even of large window elements
- Embedded hardware channel for the highest level of burglary protection
- Brushed silver lamination applied to inside and outside
- Vaulted window shapes

Result

The supplied and installed joinery passed the thermal and air tightness requirements with ease with only minor adjustments to align the 150kg door panels. Doors and windows averaging 0.5 air changes per hour and R-values of 0.9-1.2 m²°C/W.

Warm Windows provides a range of UPVC joinery suitable for application in Passive House types of buildings.



Installation into existing timber joinery frames

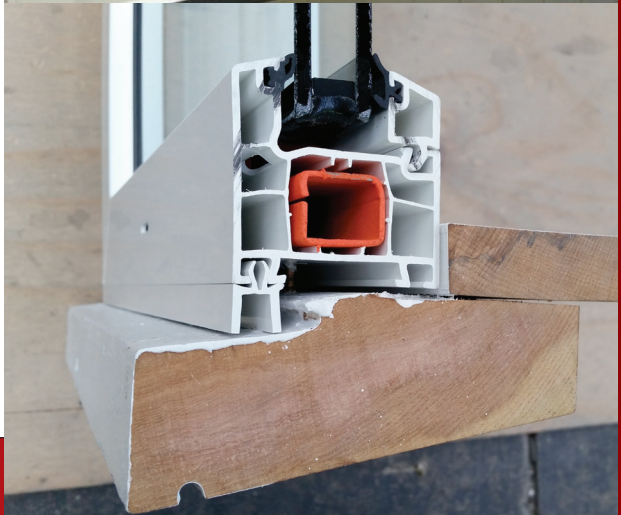
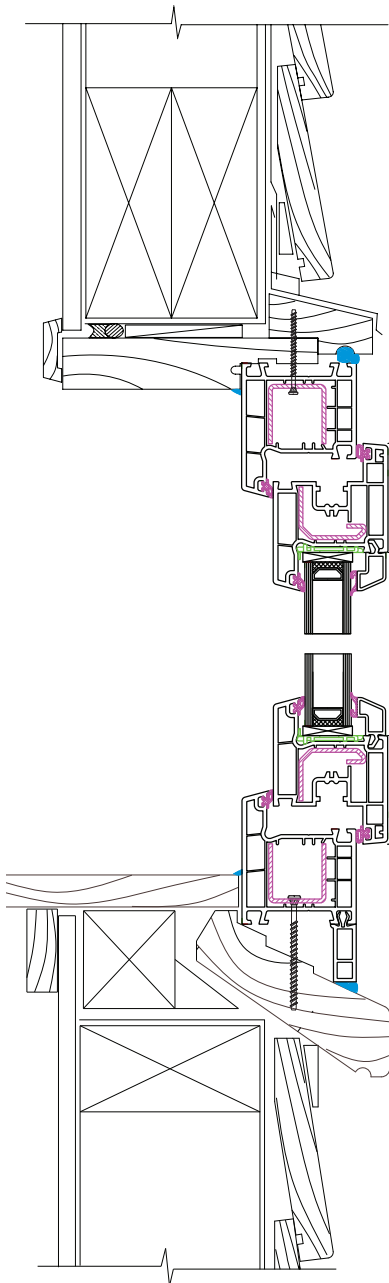
Applicable to homes with original timber joinery. The concept originated in England in the 1970's, with the sole purpose of combining the top performance UPVC frames and retaining the original features of period houses. This is achieved by removing the opening parts of the window (sashes) along with the fixed panes and installing fusion welded UPVC frames with UPVC sashes.

As UPVC has been designed to duplicate the original look of timber joinery, the finished product is in keeping with the character of villas and bungalows throughout New Zealand.

The result is no different to a fully replaced window, as thermal loss and poor sound proofing in timber joinery are a direct result of warped timbers, non sealing openings and single glazing. By replacing these parts with a complete double glazed UPVC unit into existing timber frames, the heat loss reduces and soundproofing increases exponentially.

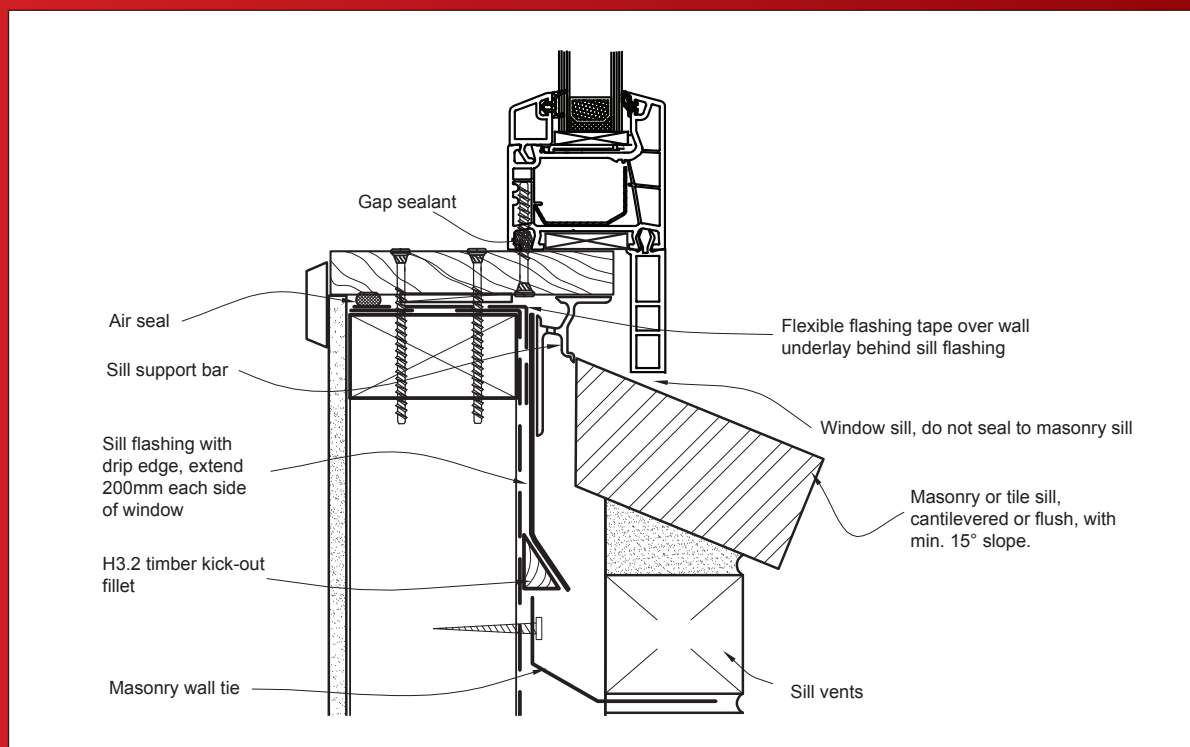
In addition to the vast benefits achieved with UPVC joinery, this type of install also allows for a considerable cost saving of up to 20%, with the added bonus of minimal disruption to existing finishes, reducing in the further outlay for redecoration and associated works.

Direct Fix Bevel Back Weatherboards

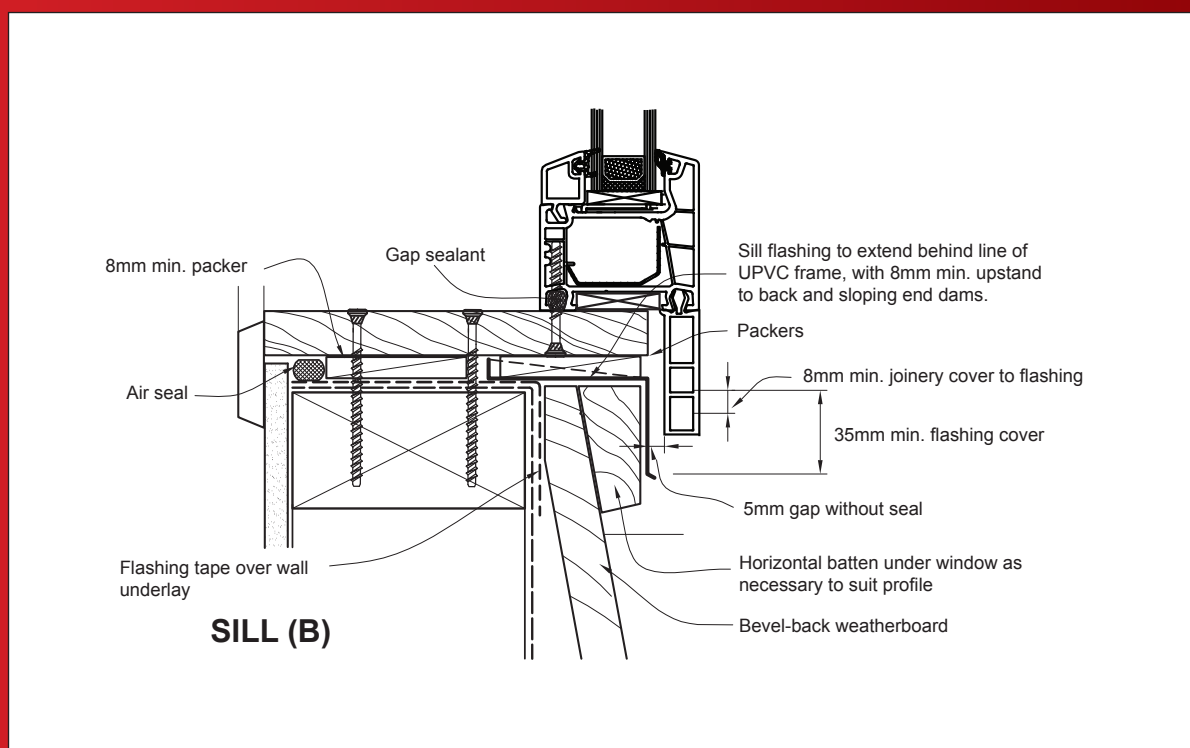


Direct Fix Installation

Cavity Construction Masonry Veneer Weatherboards



Direct Fix Bevel Back Weatherboards



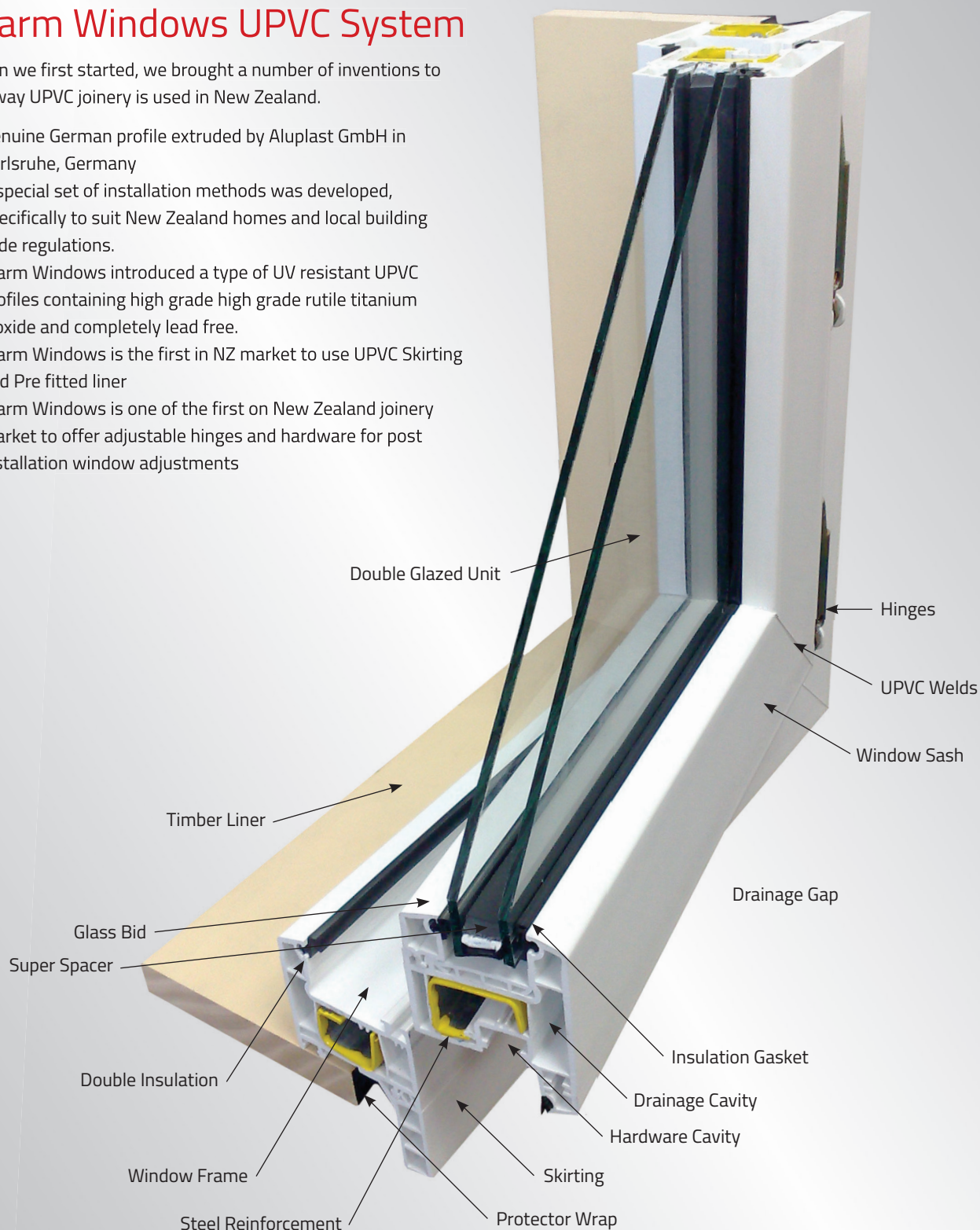
Warm Windows UPVC Systems are made specifically to work best with New Zealand's delicate climate.



Warm Windows UPVC System

When we first started, we brought a number of inventions to the way UPVC joinery is used in New Zealand.

- Genuine German profile extruded by Aluplast GmbH in Karlsruhe, Germany
- A special set of installation methods was developed, specifically to suit New Zealand homes and local building code regulations.
- Warm Windows introduced a type of UV resistant UPVC profiles containing high grade high grade rutile titanium dioxide and completely lead free.
- Warm Windows is the first in NZ market to use UPVC Skirting and Pre fitted liner
- Warm Windows is one of the first on New Zealand joinery market to offer adjustable hinges and hardware for post installation window adjustments



Warm Windows System Technology

R-Value

R-value is a measure of thermal resistance used in the building and construction industry, the bigger the number, the more effective the insulation is. The representative R-value of the Warm Windows suite of windows performed to the WERS method with a standard clear double glazing unit is $0.41 \text{ m}^2\text{°C/W}$. This compares with the standard generic New Zealand window R-values from table G1 of NZS4218:2004 as shown in the table below.

Generic Window	R(total)($\text{m}^2\text{°C/W}$)
Aluminium Frame, IGU clear	0.26
Composite Frame , IGU clear	0.26
Thermally broken aluminium frame, IGU clear	0.31
PVC or Wooden frame, IGU clear	0.36
Cascade Warm Windows UPVC frame, IGU clear	0.41

Insulated Glass Units

At Warm Windows we manufacture our own IGUs with Double or Triple Glazing. A standard Warm Windows IGU is fitted with 12.7mm Warm Edge® Super Spacer® and 2 panes of 4mm clear float. Double glazed unit are configured from 4\6.9\4 to 4/20/4, dependable on requirements. 4/12.7/4 and 4/14.3/4 are default configurations. Triple glazed units available with various configurations including but not limited to 4\6\4\6\4.

Argon

Argon is a colourless, odourless, non-flammable, non-reactive, inert gas. Argon gas fills are used to reduce heat loss in sealed units by slowing down convection inside the air space. Argon gas is extremely cost-efficient, and works well with Low-e coated glazing. A major benefit of IGU with Argon is that it is passive, it does not require a switching-on process to work. Argon gas is a relatively inexpensive option and quickly produces heat savings that justify its cost.

Low E Glass

Among other things, sunlight contains visible light, UV light and infrared (IR) light. Visible light enables us to see things. Ultraviolet light damages your skin, wood, fabrics, and causes colors to fade. Infrared light is basically radiant heat. Low E glass has the ability to allow visible light to pass while blocking certain amounts of UV light and IR light. The E stands for emissivity. Low E glass works by reflecting heat back to its source. It does this by utilizing an ultra thin metallic coating on or in the glass.

Double Insulation

Unlike typical New Zealand single insulation, double insulation integrated with Warm Window Systems is made of two individual insulation gaskets on two separate circuits at the sash and at the frame. This creates additional protection against noise, drafts, dust, moisture and water. At Warm Windows these gaskets are located on different levels which enhances their performance even further.

Warm Windows UPVC Profile Characteristic and Technology

UV Resistance

- Warm Windows utilises UV resistant UPVC profiles containing top grade rutile titanium dioxide (Kronos®) and ecologically sound CaZn-stabilizer.
- UV performance of our profiles has been validated by testing for harsh climatic conditions (severe climates).
- UV testing was done to EN12608S and EN 513 by SKZ- TeConA GmbH, one of the world's leading plastics testing laboratories. Report number 90634/10-IV.
- Aluplast profiles comply with all RAL-quality assurance guidelines and meet all quality requirements, especially in terms of durability, safety and robustness.
- More information available on request

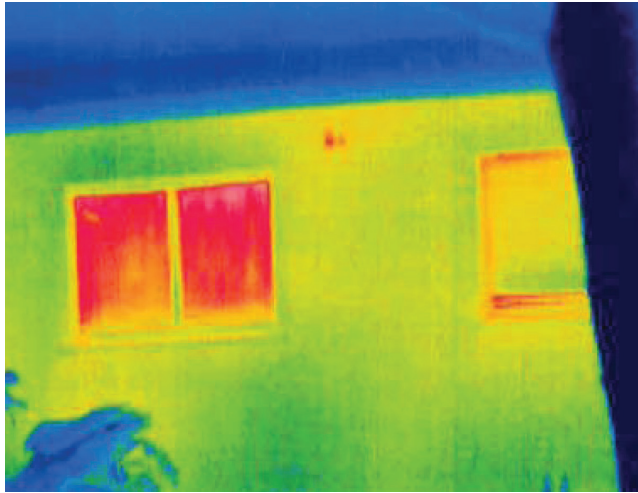
Fire proof

As per DIN EN 13501-1 tests, UPVC components are an excellent fireproof material for its non-spontaneous and self-extinguishing characteristics. It contains more than 70% of non-plasticised UPVC which in turn 57% neutral chlorine. This contributes efficiently to flame retardation. Furthermore UPVC material has very high ignition temperature of 400°C , against 210°C for wood. The coefficient of thermal expansion in UPVC ($3 \times 10^{-5}^{\circ}\text{C/cm}$) is 50% less than in the wood materials, therefore UPVC windows are easily operated under any conditions.

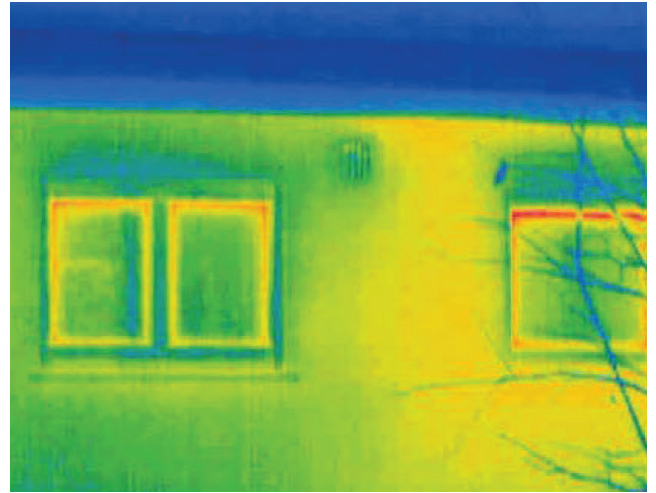
Safety

We are very concerned with the environmental safety of our product. Unlike the old UPVC frames that used Lead 82, and could possibly be harmful, our UPVC does not contain any lead and uses Calcium Zink Stabiliser in conjunction with top grade rutile titanium dioxide. Ask us for our Environmental Declaration!

Thermal Imaging Comparison



Old Wooden Window - Single Glaze



New UVPC Window - Aluplast



Information

In cooperation with the building society "Volkswohnung", in the city of Karlsruhe (Germany) the company Aluplast renovated a total of eight different kinds of windows and doors in occupied buildings.

The renovation of the windows and doors was prepared by a specialist "building physics" team as well as the local academy in agreement with the owner of the building society "Volkswohnung". In this respect all data of the objects were taken up on site and documented (Dimensions, isotherm calculations, documentation, valuation of the construction, Blower – Door – measurement [measurement of the air density]).



Customer Feedback



“Hi. I had a set of french doors made for my recording studio in Auckland. Oleg was great to deal with and talked me through all sorts of options, so we decided on triple glazed with laminated sound stop glass.

The doors are certainly an impressive looking entrance, and they perform soooooo much better at keeping sound out, than many of the top studios in town, that I have worked out of my whole life.

Very satisfied customer here, and would highly recommend using warm windows UPVC triple glazed for any type of recording studio. Extremely good professional install also.” – Joel

“I am rating these products after 1 year of use and a hard winter of storms. The windows have performed fantastically with zero problems and really meeting expectations of warmth, little/no noise and functionally still as good as day one.

From the first contact with Oleg and meeting him at their East Tamaki offices where he took the time to walk us through all there product range and options, through to a number of design changes and quotes, Oleg was a pleasure to deal with, professional, gracious and no fuss, even after having to deal with our fussy council planner!

The team of installers are equally good efficient and professional and no mess to clean up at the end of the job they do it all.

If I was build a new house again I would have no hesitation using them again and for an existing house with aluminum glazing it is the first thing I would contact Warm Windows to replace, they are a great team and have a great product.” – James

“Warm Windows, what a marvellous company! Helpful and professional from the very first meeting through to the final installation. The product is absolutely first class and we are already feeling the advantages of double glazing, we are very happy!” – Steve

“The warm windows team finished our install this morning and all I can say is WOW!

Right from the get go, we were impressed. As a new mother I needed both warmth and practicality but didn’t really know what to ask for. The Warm Windows team not only answered my questions but made suggestions to improve my window selections. The end result - a great balance of looks and safety for my little one.

The windows themselves are impressively high quality and have really changed the light and temperature in the house. The locks and doors already make me feel safer too!

As for the install team, I have rarely encountered such polite, professional and tidy tradesmen. They arrived on time, communicated well and kept us up to date throughout the job. They did a wonderful job with no fuss. They even left the place spotlessly clean. I couldn’t have asked for more. Thank you!” – Laura

Certificate of Authorization



Karlsruhe | 27.05.2013

This is to certify, that **Warm Windows** is a chosen and authorized aluplast windows and doors manufacturer.

As authorized aluplast partners, they are driven to produce a high end product that will meet customers' expectations in terms of thermal (insulating) acoustic and security requirements.

Complying with statutory and regulatory requirements, **Warm Windows** shall strive to maintain the product stewardship and an edge over competitors through continual improvement in our processes.

P. Seif

aluplast GmbH
Managing Director

Certificate of Training & Quality Performance



Karlsruhe | 27.05.2013

aluplast ensures the use of high-quality PVC to manufacture high-standard U-PVC profiles. To guarantee a top-level of the product-range, aluplast is controlled by different independent quality agencies like BSI, IFT Rosenheim, TÜV and many more and achieves all related certificates such as RAL 716/1 & BS EN 12608 for its entire products.

In general, to assure high quality window fabrication, in cooperation with our customers we train our fabricator's production staff and QC department on a regular base.

In particular, we certify and confirm that our fabricator namely **Warm Windows** is using our IDEAL 2000®, IDEAL 4000® and Sliding systems and their technical teams have been trained by aluplast instructors. They achieve a high quality performance in fabrication of standard windows and doors.

Warm Windows has been inspected by our technical managers and inspectors in accordance with the visit schedule to this certificate. **Warm Windows** uses aluplast profiles and the performances and production quality meets our standards according to our "Verarbeitermappe | manual book".

G. Ull

aluplast GmbH
Head of Technical Department

P. Seif

aluplast GmbH
Head of Quality Management

Test and Certification



Thermal Performance of Cascade Warm Windows, to Standard WERS method

1. CLIENT

Cascade International
63 Kerwyn Avenue
East Tamaki

2. BRIEF

Calculate the thermal performance of the Warm Windows casement window system to the standard WERS method with a standard IG, using NFRC boundary and environmental conditions.

This requires starting from .dxf files of the head, jamb, sill and mullion PVC sections and building up so that the software package 'Therm' can calculate the thermal performance of the system with a standard double glazing unit. The overall size is 1500 x 1800 with a central mullion.

The result will be included in a report as the standard R-value representing the suite of Warm Windows PVC windows, in the same manner as the calculations have been performed for the generic windows in Appendix G of NZS4218.

3. RESULTS

The representative R-value of the Warm Windows suite of windows performed to the WERS method with a standard clear double glazing unit is 0.41 m²C/W.

This compares with the standard generic New Zealand window R-values from Table G1 of NZS4218:2004 as shown in the table below.

Generic Window	R _(total) (m²C/W)
Aluminium Frame, IGU clear.	0.26
Composite frame, IGU clear	0.26
Thermally broken aluminium frame, IGU clear	0.31
PVC or Wooden frame, IGU clear	0.36
Cascade Warm Windows UPVC frame, IGU clear	0.41

JCB



Report Number: EC1461/1

Date of Issue: 3 July 2008

ICS



Test Report Summary and Expert Statement

Airborne Sound Insulation of Building Elements

11-000845-PR02
(PB-A01-04-en-01)

Client: **aluplast GmbH
Kunststoffprofile
Auf der Breit 2**

D-76227 Karlsruhe

Product: **Single window, single leaf**

Designation: **ideal 2000**

Overall dimensions (W x H): **1,230 mm x 1,480 mm**

Frame material: **PVC profiles with steel reinforcement**

Type of opening: **Tilt and turn**

Glazing: **Insulating glass unit (IGU)**

Frame structural depth: **Frame member: 60 mm**

Additional design variants: **See type list**

Weighted sound reduction index R_w
Spectrum adaptation terms C and C_w

Basis

EN ISO 140-1:1997+A1:2004
EN ISO 140-3:1995+A1:2004
EN ISO 717-1:1996+A1:2006
EN 14351-1:2006

Test reports referring to windows from System aluplast ideal 2000.

This Test Report Summary and Expert Statement is a translation of Test Report Summary and Expert Statement no. 11-000845-PR02 (PB-A01-04-de-01) dated 31 August 2011.

Instructions for use

This expert statement together with the above basis serve to demonstrate the airborne sound insulation of a building element.

As per DIN 4109:1989-11, the following is applicable in Germany:

- R_w corresponds to $R_{w,p}$
 $R_{w,p} = R_{w,t} - 2 \text{ dB}$
- $R_{w,p}$ for Construction Products List (Bauregelliste)

Validity

Testing the airborne sound insulation of a window does not allow any statement to be made on any additional properties relating to performance and quality of the present construction.

Notes on publication

The IfT Guidance Sheet "Conditions and Guidance for the use of IfT Test Reports" applies.

 **homestar.org.nz**
Know your home

Classification Report Reaction to Fire of Construction Products

Nr. 12-001896-PR03
(KB-K20-01-en-01)



Basis

DIN EN 13501-1:2010-01
Fire classification of building products and building elements
Part 1: Classification using data from reaction to fire tests

aluplast GmbH
Auf der Breit 2
76227 Karlsruhe
Germany

ift Rosenheim GmbH
Theodor-Gietl-Straße 7-9
D-83026 Rosenheim
0757

1
PVC window profiles
"IDEAL 4000"
"IDEAL 2000"

Notes of application

This classification report for reaction to fire defines the classification assigned to the building material according to its product designation in conformity with the methods set out by EN 13501-1.

This classification document does not represent type approval or certification of the product.

Validity

The data and results given relate solely to the tested and described specimen.

Notes of publication

The IfT Guidance Sheet "Conditions and Guidance for the Use of IfT Test Documents" applies. The cover sheet can be used as an abstract.

Classification of reaction to fire
DIN EN 13501-1

Class E

Contents

The report comprises a total of 5 pages.

- 1 Introduction
- 2 Details of the classified construction product
- 3 Test reports, test results and evaluations in support of this classification
- 4 Classification and field of direct application
- 5 Limitations



erbauer, Dipl. Phys.
Testing Department

Dr. rer.nat. Mihaela Buschbeck
Operating Testing Officer
Fire safety

Test report no.: **90634/10-IV**

Customer: **aluplast GmbH
Kunststoff-Fenstersysteme
Auf der Breit 2
76227 Karlsruhe
GERMANY**

Production site: **76227 Karlsruhe
GERMANY**

Order: Testing of fastness to weathering and weathering resistance according to EN 513, procedure 2 (simulation of a severe climate zone, S) up to an irradiation dose of 12 GJ/m² in the wave length range between 300 nm to 800 nm and determination of material characteristics on window profiles made of PVC-U according to EN 12608 / NEN 7034-1.

Letter dated: **2010-08-26
2011-04-21**


Ref: Ms. Dr Bulmahn

Sample receipt: **2010-08-31, 2010-10-14 and 2011-04-27**


Test period: **2010-09-22 to 2012-02-13**

The test report comprises 9 pages.

Würzburg, 2012-03-01
Rs/sts

i. V. 
Dr. Anton Zahn



i. A. 
Wolfgang Ries

The original language of the report is German. In case of doubt, the German version is obligatory.

SKZ - TeConA GmbH
Testing, Quality Assurance, Certification
Friedrich-Bergler-Ring 22
97076 Würzburg

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Dr.-Ing. Gerald Aengenheyster
HRB 7840
Amtsgericht Würzburg

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tecona@skz.de
www.skz.de



DAP-PL 3978.00
DGA-15-2005.00

Notes:



WarmWindows

UPVC Windows & Doors with Double Glazing

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