



FAQS ON DOUBLE GLAZING

FOR HERITAGE WINDOWS

Can heritage windows be double glazed?

Yes, they absolutely can.

How are heritage windows double glazed?

Discover the exclusive Thermawood approach to transforming heritage windows into energy-efficient units through a specialised double-glazing process.



Our unique methodology involves precision tooling and custom processes. Initially, a section of the external window frame surrounding the existing single-glazed pane is carefully removed, leaving a subtle 15-degree slope at the frame's bottom. This strategic modification enables the installation of our grand adaptor and patented dry glazing drainage system.

A specially formulated two-compound backing seal is affixed to the frame, and the blocks supporting the insulating glass unit are carefully positioned on the grand adaptor's locating steps. The double-glazed insulating glass unit is seamlessly inserted into the window, and the front seal is attached to the beading. The beading, designed with a unique bottom bead, ensures efficient moisture escape while securely fastening to the frame.



Throughout this innovative retrofit process, we maintain the original character and aesthetics of your heritage windows. The window beads align with the original putty angle, preserving the authenticity of your window. Our commitment extends beyond mere double glazing – we re-weight sash windows, machine in draught seals with an emphasis on seamless integration, and meticulously refurbish any window area requiring attention. The result? Your heritage window not only achieves enhanced energy efficiency but operates with the seamless precision of a brand-new installation. Elevate your space with Thermawood, where innovation meets heritage preservation.

**UNVEILING THE CORE
CHALLENGE IN DOUBLE
GLAZING WOODEN
WINDOWS.**

When double glazing encounters prolonged exposure to water, its vulnerability becomes apparent. The most prevalent cause of double glazing failure is often traced back to improper installation. **The consequence?** Fogging within the double glazing, signalling a breakdown in the critical edge seal. In such instances, the only effective remedy involves the replacement of both the double glazing and, potentially, the compromised wooden frame, especially if water has lingered in the timber rebate without proper drainage.



In theory, double glazing boasts a lifespan of 25 years. However, a crucial detail often overlooked is its 10-year warranty. While the expectation is that double glazing should endure for at least a decade, it is not an ideal scenario for manufacturers, suppliers, or window companies to celebrate merely meeting the warranty period. Imagine acquiring a house with eight-year-old double glazing, only to face the prospect of replacing all units in two years due to improper installation, resulting in decayed wooden frames. Such a situation is undoubtedly an unwelcome experience for any customer.

**HOW DOES
THERMAWOOD EXTEND
THE LIFESPAN OF
WOODEN WINDOW
DOUBLE GLAZING?**



WHY THERMAWOOD?

Our System Prolongs the Lifespan of Wooden Window Double Glazing

At Thermawood, our mission revolves around extending the longevity of double glazing in wooden windows.

We specialise in bringing heritage windows into the 21st century, ensuring they perform on par with new double-glazed counterparts in terms of thermal and noise insulation. What sets us apart is our commitment to retaining the original character of these windows, offering a seamless blend of tradition and modern efficiency.

With Thermawood, your heritage windows can not only endure but thrive for another century, providing enduring comfort and style.

Welcome to a future where preservation meets innovation.

Thermawood[®]
RETROFIT & NEW TIMBER DOUBLE GLAZING SYSTEMS

DISCOVER THE THERMAWOOD ADVANTAGE

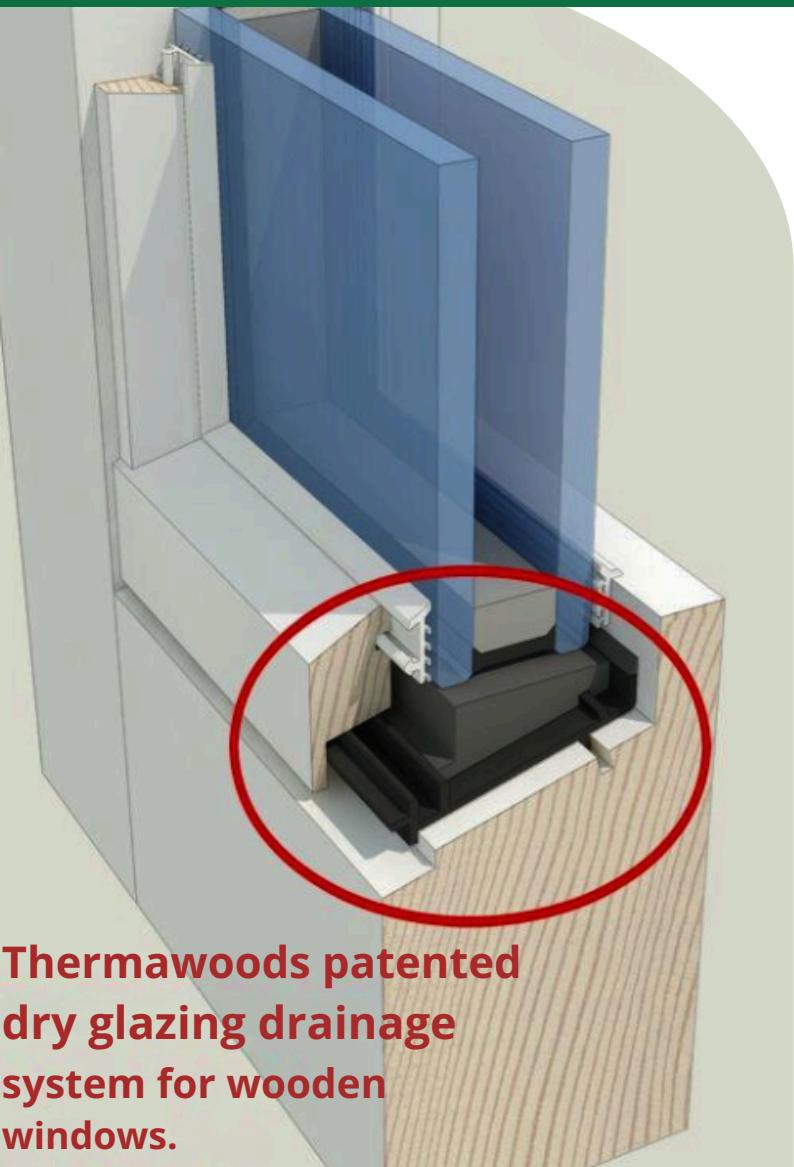
A Focus on Longevity in
Retrofit Double Glazing.

Our innovative retrofit double glazing system is meticulously engineered to defy the test of time, focusing on a key element: full drainage beneath the double glazing. Invariably, water finds its way into the glazing rebate, and our system ensures it can efficiently drain away from the double glazing, fostering longevity in both the glazing and the timber frame.

Water, the arch-nemesis of timber windows and double glazing, meets its match with the Thermawood system. Regrettably, many suppliers persist in placing double glazing into square rebates, leading to the demise of windows and the failure of Insulated Glass Units (IGUs).



The primary issue arises with the polysulphide secondary seal around the IGU. Some companies encase the double glazing in a square-cut rebate, filling it with silicone. However, this approach poses two critical problems: most silicones are incompatible with the polysulphide seal, and if there's a gap in the rebate seal, water infiltrates, becoming concentrated saturated water vapour that corrodes the polysulphide seal, resulting in double glazing failure.




Thermawoods patented dry glazing drainage system for wooden windows.

Enter our patented dry-glazing system – a revolutionary drainage solution free from seals and silicones within the rebate, except for a small seal at the end of the drainage system, carefully designed to be compatible with the polysulphide seal. This seal is strategically placed against the timber, ensuring no elements within the system touch the double glazing, mitigating the risk of failure.

Thermawood pioneered the use of silicone setting blocks, a departure from the commonly used Santoprene. Studies globally have highlighted Santoprene's compatibility issues with the polysulphide seal.

We were the first in New Zealand to transition to silicone blocks, made from solid silicone and proven to be compatible with insulated glass units. These intricate details make a substantial impact, and Thermawood stands as a testament to innovation guided by specialised knowledge.

While end-users may not possess this intricate understanding, they can trust in Thermawood's commitment to delivering a double glazing solution that not only stands the test of time but sets a new standard for durability and performance.



WHAT IS THERMAWOOD'S PATENTED DRAINAGE SYSTEM FOR WOODEN WINDOWS?



With over three decades of collective industry experience, we, the minds behind Thermawood, emerged as industry professionals driven by a relentless pursuit of excellence. Our journey has been shaped by learning from industry shortcomings, catalysing a commitment to redefine standards. At Thermawood, our innovative approach is rooted in the desire to embody the very best industry practices.

Our foray into designing the patented drainage system for wooden windows began with a thorough examination of reported fogged windows. What we consistently found was a recurrent issue – seal failure stemming from the utilisation of a square rebate. Armed with this insight, we recognized the imperative for a superior solution.

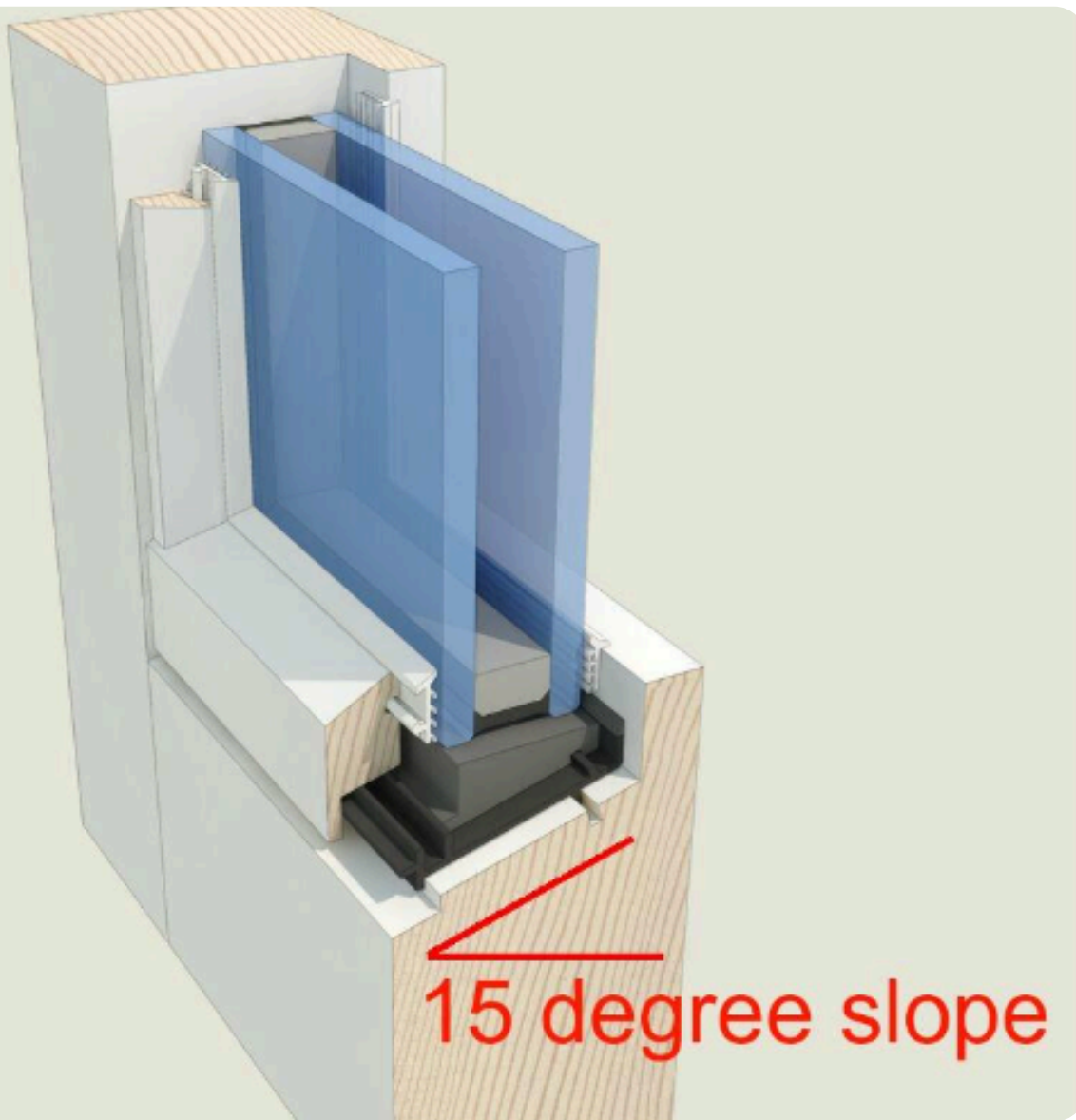
There had to be a better way, and that realisation ignited our quest for innovation. Drawing inspiration from the drainage principles evident in aluminium and PVC windows, we set out to engineer a drainage system that would revolutionise the performance and longevity of wooden windows.



The Thermawood System is a testament to our unwavering commitment to addressing industry challenges head-on. By focusing on superior drainage, we've eliminated the root cause of seal failure, offering a groundbreaking solution that goes beyond industry standards.

When you choose Thermawood, you're not just investing in a product; you're embracing a legacy of expertise, dedication, and a relentless pursuit of perfection. Join us on a journey where innovation meets industry wisdom, setting a new standard for the future of wooden window solutions.

HOW WAS THERMAWOOD'S INNOVATIVE DRAINAGE SYSTEM DEVELOPED?



In the dynamic realm of wooden windows, the Thermawood drainage system stands as a testament to meticulous engineering. The core principle is simple yet revolutionary – water inevitably finds its way into the glazing rebate, and when it does, it must have a seamless exit strategy.

At the heart of our design philosophy is a 15-degree slope beneath our double glazing. This deliberate inclination ensures that every component of the system is strategically positioned for optimal water management.

Enter the patented Thermawood drainage system, an ingenious solution that transforms potential issues into worry-free performance. Nestled underneath the double glazing, this system is a marvel of functionality. Picture this: a series of drainage slots, strategically placed every 10 cm, create an unobstructed path for water to follow.

When water infiltrates the glazing rebate, it gracefully flows down onto the Thermawood drainage system. The 15-degree slope and well-spaced drainage slots ensure efficient water diversion, preventing any accumulation that could compromise the integrity of the double glazing or the timber frame.



Our commitment to excellence means we've thought through every detail. Each slot is meticulously designed to prevent any potential blockage, ensuring consistent performance over time. The system's innovative design guarantees that even the heaviest downpours are efficiently managed, leaving your wooden windows and double glazing protected and in pristine condition.

In essence, the Thermawood drainage system is the unsung hero, tirelessly working behind the scenes to ensure your windows remain a source of beauty and functionality. It's a testament to our dedication to redefining industry standards and delivering solutions that stand the test of time.

Welcome to the future of wooden window innovation with Thermawood.



PIONEERING THE FUTURE

The Genesis of Thermawood's Innovative Drainage System

As end-users, we embarked on the development of our revolutionary drainage system with a clear vision of what we desired. This foresight facilitated a swift journey from concept to market, driven by our unique perspective and industry expertise.

Our initial focus was on retrofitting, given our standing as a prominent glazing company retrofitting both new and existing windows. Back then, while we considered ourselves industry leaders, competition was on the rise. We had already implemented certain features, such as rebated frames, a 15-degree slope, and slots in the bead. However, to maintain our edge, we knew we had to elevate our game.



In 2008, a pivotal moment occurred when I collaborated with an architect friend. Hand sketches were transformed into a professional model of our innovative timber drainage system. Seeking to refine and perfect our design, we transitioned to Computer-Aided Design (CAD), and our architect friend connected us with the business development unit at Otago Polytechnic.

This collaboration took us into the realm of 3D printing, a technology that, until then, had only been witnessed on television. The process was nothing short of surreal – designing a product, hitting the print button, and physically holding the prototype in our hands for evaluation. It allowed us to iterate and refine our design in a matter of weeks.

To put this achievement in perspective, the business development unit, accustomed to projects taking years, was astounded at our rapid progress. Completing a project of this magnitude in just three months was unheard of in their experience.

This acceleration was made possible because we, as end-users, intimately understood our needs. Our continuous commitment to innovation is a hallmark of Thermawood's ethos. Over the past decade, our products have evolved, and our development is an ongoing process. Importantly, our products are crafted by the same local suppliers, underscoring our dedication to quality and consistency.

Welcome to Thermawood – where innovation meets a relentless pursuit of excellence.

PRESERVING HERITAGE

Unravelling the Challenges
Faced by Heritage Property
Owners

In the heart of our main cities , and various historical pockets across New Zealand & Australia, a tapestry of heritage overlays weaves through the older districts. For those fortunate enough to own heritage properties, a unique set of challenges arises, particularly concerning the preservation of heritage windows. These windows, often integral to the character of the building, present limitations on alterations due to their heritage status.



At Thermawood, where we understand the delicate balance between preservation and modernization. Unlike the stark appearance of aluminium or PVC windows, our solutions are crafted with heritage in mind. Our expertise lies in seamlessly retrofitting heritage windows without compromising their aesthetic integrity.

Once we've completed our work, it's almost as if we were never there.

Our attention to detail is evident in every aspect of the retrofitting process. The beads, meticulously aligned at the same angle as the old putty, seamlessly integrate into the heritage window. When we rebate the frame for the double-glazed unit, the angle of the beads harmoniously mirrors the original putty. This isn't an add-on or secondary glazing – it's a fully incorporated, properly-sealed double-glazed insulated glass unit nestled within the heritage window.

For heritage property owners contemplating renovations, our solutions offer a gateway to modern comforts while respecting the historical significance of their dwellings.

Whether opting for a partial renovation or a more extensive project, Thermawood ensures that the heritage front remains untouched, mirroring the approach seen on projects like The Block.



Our commitment to innovation extends beyond preservation. We bring old heritage windows into the 21st century, providing enhanced insulation, noise reduction, and draught-proofing.

In the intricate dance between past and present, Thermawood emerges as the partner of choice for heritage property owners, bridging the gap between tradition and contemporary living. Welcome to a future where heritage meets innovation, and every window tells a story of seamless evolution.



DISCOVERING THE HIDDEN HERITAGE

Unveiling the Surprises of Heritage Homes

In the realm of property ownership, there's a fascinating twist that occasionally unfolds – the unaware ownership of a heritage-listed property. Surprising as it may seem, some individuals may find themselves in possession of historically significant structures without realising their unique status.

This lack of awareness becomes particularly crucial when property owners are considering modifications or renovations. Uninformed actions in a heritage-listed property can lead to unintended consequences. However, the challenge lies not only in the potential pitfalls but also in the solutions available to seamlessly blend modern comforts with historical preservation.

Thermawood is the pioneer in a specialised field that often remains undiscovered. As the sole company offering our unique heritage window retrofitting services, we find ourselves in the position of selling a well-kept secret. Many property owners, unbeknownst to them, may be sitting on the potential to elevate their living spaces without compromising the heritage value.

It's not uncommon for us to encounter individuals at Home Shows who express disbelief, exclaiming, "**We've been told that what you do can't be done.**" Our mission goes beyond retrofitting heritage windows; it involves spreading awareness that there are innovative solutions available for heritage property owners.

We pride ourselves on being the torchbearers of a transformational approach that not only respects the historical significance of heritage-listed properties but enhances their functionality for contemporary living. As we continue to unveil the possibilities, we invite property owners to step into a realm where heritage meets innovation, and every window holds the potential for a seamless blend of the past and the present. Welcome to a world where the hidden heritage becomes a canvas for modernization, with Thermawood leading the way.



Thermawood[®]
RETROFIT & NEW TIMBER DOUBLE GLAZING SYSTEMS

NAVIGATING HERITAGE WINDOW CHALLENGES

A Glimpse into Past Solutions

Before the advent of Thermawood's groundbreaking retrofit double glazing, heritage property owners explored various avenues to address the challenges posed by ageing windows.

Some opted for draught seals, a practical solution that helps combat draughts, enhancing insulation and comfort within the space. While effective in mitigating draughts, draught seals may fall short of providing comprehensive insulation benefits.

Another approach was the adoption of secondary glazing. However, the aesthetic appeal and operation of secondary glazing often left much to be desired.

Many heritage property owners found themselves grappling with the compromise between functionality and visual harmony.

Additionally, some homeowners resorted to the installation of double windows, introducing a secondary window within the original frame. While this method achieved notable acoustic insulation benefits, the visual impact on the heritage window's appearance was undeniable.





Thermawood is a transformative solution that eclipses these traditional approaches. Our retrofit double glazing not only addresses draughts but goes beyond, providing comprehensive insulation benefits.

Unlike secondary glazing, our system seamlessly integrates into the heritage window, maintaining its authentic appearance.

The result is a harmonious blend of heritage aesthetics and modern functionality. As we pave the way for a new era in heritage window solutions, Thermawood stands at the forefront, offering property owners a chance to preserve the charm of the past while enjoying the comforts of the present. Welcome to a future where heritage windows are not just a piece of history but a canvas for innovation and enduring beauty.

NAVIGATING HERITAGE GUIDELINES

Insights from Councils and
Heritage Authorities

In the past, councils and heritage authorities often recommended traditional solutions such as secondary glazing or film for heritage property owners grappling with window-related challenges. However, the landscape has evolved, and a groundbreaking alternative has emerged – Thermawood's retrofit double glazing.

As pioneers in our field, we recognized the need to collaborate with councils and heritage bodies to introduce our transformative solution. The reality is that councils and heritage authorities don't typically endorse specific companies or products. Instead, they offer property owners a range of options and ideas to explore.

Our engagement with councils and heritage bodies has been instrumental in building awareness of our existence and the unique benefits we bring to heritage window preservation. We are proud to share that Thermawood holds heritage approval, a testament to our commitment to working within the guidelines set forth by councils and heritage authorities.



For properties under a Heritage Overlay, the general advice often revolves around preserving existing windows rather than replacing them. The process for such work is usually straightforward, with an emphasis on maintaining the heritage aesthetic. However, for listed properties, each job necessitates its own approval, evaluated on its individual merits. **Thermawood has successfully obtained approval for every listed property project**, showcasing our ability to align with the stringent criteria set by heritage authorities.

In essence, our collaboration with councils and heritage bodies extends beyond mere approval – it's about fostering a shared understanding that preservation and innovation can coexist. Thermawood stands as a beacon of possibility, offering heritage property owners a solution that not only meets stringent guidelines but elevates the performance of heritage windows for generations to come.

Welcome to a future where heritage preservation meets cutting-edge technology with Thermawood leading the way.



A worker wearing a black Thermawood cap, large black ear protection, and a dark blue and black Thermawood jacket is working on a window frame. The worker is focused on the task, with their hands on the frame. The background shows a blurred outdoor setting with buildings and trees.

ELEVATING HERITAGE WINDOWS

Tailored Solutions for Varied
Challenges

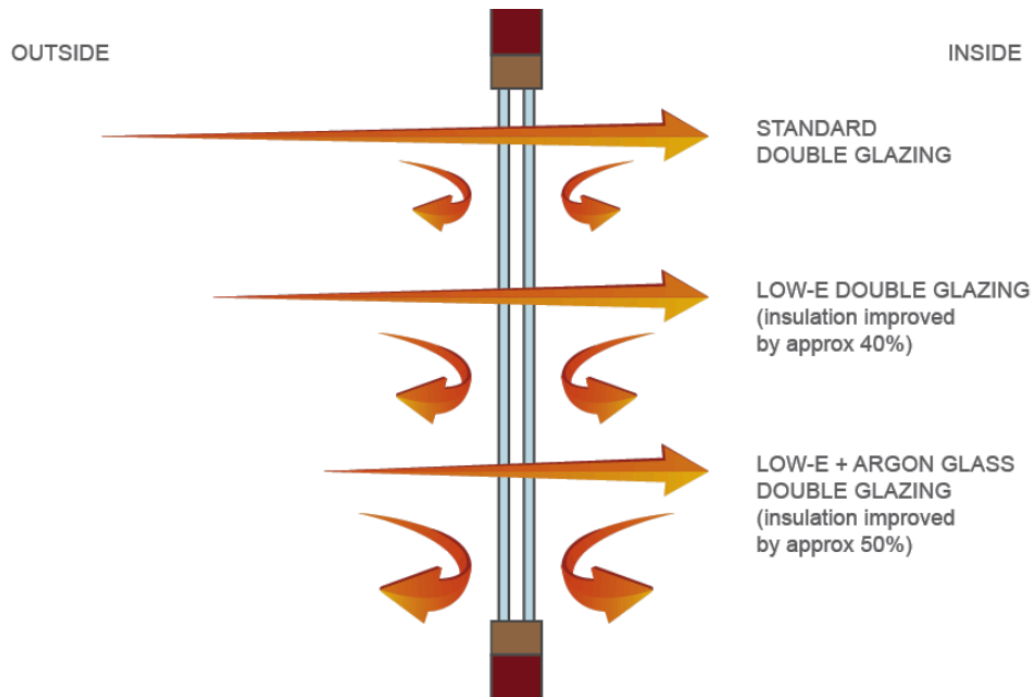
Heritage windows bring timeless charm, but they also present unique challenges, with noise and insulation topping the list. At Thermawood, we specialise in crafting tailored solutions that go beyond the ordinary, addressing each window's specific needs.



Noise intrusion is a prevalent concern, especially in heritage properties. To combat this, we leverage acoustic glass, significantly reducing external sounds and creating a quieter, more comfortable living space.

Insulation issues are often exacerbated in heritage properties, especially when the layout is not optimised. We counter this by incorporating Low-E glass with argon gas and acoustic glass within the same unit, ensuring optimal insulation and noise reduction.

Each heritage property is a unique canvas, often featuring varied orientations and room functionalities. At Thermawood, we approach every window with a keen understanding of its individual requirements. Whether it's noise, insulation, security, or a blend of factors, our goal is to tailor the double glazing solution per room.



Our commitment to quality extends beyond customization. Before embarking on any retrofit, we conduct a comprehensive assessment of the existing windows, looking for signs of rot, water penetration, and the condition of hardware. If replica heritage hardware is needed, we explore the available options.

Transparent communication is at the core of our ethos. Our quotes are detailed and robust, itemizing any extras such as hardware, ropes, or additional items.

At Thermawood, we don't retrofit windows that aren't up to the task. We prioritize a thorough evaluation to ensure the longevity and effectiveness of our solutions. Welcome to a world where heritage windows not only retain their timeless charm but also embrace modern functionality with Thermawood's tailored approach.

Thermawood[®]
RETROFIT & NEW TIMBER DOUBLE GLAZING SYSTEMS

PRESERVING HERITAGE ESSENCE

Rediscovering Originality
with Thermawood

One of the distinctive features of heritage windows lies in their original hardware, and at Thermawood, we understand the significance of maintaining that authenticity. If original hardware is missing, we have you covered.



Our extensive list of heritage hardware includes options in brass, satin chrome, and various finishes, ensuring a comprehensive selection for homeowners seeking to replicate the original charm of their windows.

Our process involves cutting around the old glass during removal, ensuring it remains intact. If you have heritage glass, rest assured – we can preserve it. For leadlights, our process involves gently removing them, allowing a leadlighter to refurbish them to their former glory.

Once restored, we place them securely within the double glazing, extending their life to an impressive 90 years. This commitment to preservation extends beyond aesthetics; it's about encapsulating the essence of heritage within every window.

At Thermawood, we don't just retrofit windows; we craft timeless transformations that honour the past while embracing the future.

Welcome to a world where heritage windows not only endure but thrive with Thermawood's meticulous attention to detail and preservation expertise.

PRESERVING THE STRENGTH OF HERITAGE

**A Testament to Timeless
Materials**



In the realm of heritage windows, there's a profound truth – the original materials used were of unparalleled quality and durability. At Thermawood, we recognize the enduring strength of these materials and leverage them to ensure windows stand the test of time.

Consider a heritage window, standing resilient after 100 to 140 years. The timber used in its construction is often old-growth timber, renowned for its robust nature and longevity. Unfortunately, such timber is a rarity today, as we've exhausted the world's supply. Yet, within these heritage windows lies a treasure trove of materials that surpass the resilience of contemporary alternatives.

Preserving these original materials isn't just about retaining the aesthetics of the past; it's a practical choice rooted in the inherent strength of the materials. When Thermawood completes its transformative work, the result is a heritage window poised to endure for another century. It's not merely a restoration; it's a preservation of heritage, ensuring that the legacy of these windows lives on, robust and timeless.

Welcome to a future where the strength of the past meets the innovations of the present, creating heritage windows that don't just survive but thrive for generations to come. With Thermawood, the story of heritage is one of enduring strength and timeless elegance.

PRESERVING THE INTEGRITY OF HERITAGE

The Advantages of Reusing
Original Timber

When it comes to heritage windows, there's an intrinsic value in retaining the original timber frame that surpasses the benefits of replacing it with new timber. As a joiner with a deep appreciation for craftsmanship, I can attest to the numerous advantages of preserving the authenticity of these time-worn frames.



First and foremost, the original timber fits the frame – a seemingly simple yet crucial factor. Fitting a new frame or sash into an existing opening poses numerous challenges. Settlement, subtle movements, and variations in squareness are inherent in any structure, making the task complex. The original timber, marked with dings and bangs acquired over decades, effortlessly conforms to the unique contours of the frame. This character, though imperfect by conventional standards, tells a story of a window that has stood the test of time.

At Thermawood, we don't just retrofit windows; we honour their heritage. Welcome to a future where the value of authenticity reigns, and every window tells a story of enduring craftsmanship and character.

As a joiner, I understand the intricacies of this process. The original timber may bear nicks and marks, but it is precisely these imperfections that contribute to its charm. Whether it's a section that slid past a lock for a century or colonial bars with a distinctive appearance, these details become part of the window's narrative. When the pieces come back together, they form a harmonious whole that fits seamlessly into its historical context.

Attempting to introduce something new into an old opening is not just arduous; it disrupts the visual harmony of heritage windows. The contrast between heritage timber and its modern counterpart is evident, even with expert craftsmanship and meticulous painting. There's a distinct beauty in the authenticity of the original, imperfect timber that cannot be replicated.

IS POOR DESIGN AN ISSUE WITH ANY STYLE OF HERITAGE WINDOW

from one period to the next?

ELEVATING HERITAGE FUNCTIONALITY

Dispelling the Myth of Poor Design

In the realm of heritage windows, functionality is often attributed to poor design, but the reality is quite different. Heritage windows typically fall into two categories: double-hung or casement windows. The primary issue affecting their performance is not inherent design flaws but rather a lack of maintenance

For casement windows, a common misconception arises when people observe gaps at the bottom, leading to draughts. While some may attribute this to a twisted sash, it's often the house settling, causing the frame to twist. Replacing the sash with a new one may not resolve the issue. At Thermawood, our innovative draught-seal approach, seamlessly machined into the window (no adhesives), allows us to identify and address these gaps effectively, eliminating draughts.



Similarly, double-hung windows, if properly maintained, function exceptionally well. However, when we encounter them, the top window is frequently painted shut after years of neglect. Our meticulous process involves stripping away decades of paint, restoring the windows to their intended operability.



By addressing the consequences of lack of maintenance, we ensure that heritage windows operate as they should. Double-hung windows, when restored to their original condition, exhibit smooth operation – they come down, close seamlessly, and function as a testament to their well-crafted design.

At Thermawood, we don't just retrofit windows; we revive their functionality and bring them back to life. Welcome to a future where heritage windows not only retain their timeless charm but operate as efficiently as they did in their prime. With Thermawood, the narrative shifts from poor design to a celebration of enduring craftsmanship and functionality.

Thermawood[®]
RETROFIT & NEW TIMBER DOUBLE GLAZING SYSTEMS



PRESERVING HERITAGE WISDOM

**A Guiding Light for Window
Renovation**

In the realm of heritage windows, a valuable piece of advice stands tall: "Don't Replace - RETROFIT" Before embarking on any window-related endeavours, take the time to educate yourself and understand the true potential of these timeless elements.

Double-hung windows, often a source of trepidation for homeowners, are deceptively simple. To appreciate their functionality, one must first understand their intricacies. At Thermawood, we don't just restore windows; we demystify the workings of double-hung windows. Drawing from years of experience, including time spent in England refurbishing heritage homes, we've come to intimately know these windows – how they operate, their nuances, and what it takes to bring out their true potential.

It's a common misconception that demolishing and replacing is the only solution. Instead, consider the wealth of knowledge available before tearing into your windows. Our franchisees, armed with the insights gained over the years, consistently astound customers with the transformation of their double-hung windows. The key lies in understanding, appreciating, and preserving the inherent beauty and functionality of these heritage treasures.

So, before you wield the sledgehammer, arm yourself with knowledge. Learn about the unique characteristics of your heritage windows, and you might just discover a world of possibilities that renovation, not demolition, can unlock. At Thermawood, we are not just preserving windows; we are preserving heritage wisdom, one renovation at a time. Welcome to a future where education guides preservation, and heritage windows stand as testaments to enduring craftsmanship.

READY TO EXPERIENCE THE THERMAWOOD DIFFERENCE?

Contact us today for more information on transforming your windows for a better tomorrow.

bit.ly/GetThermawood-NZ

