



FAQS ON DOUBLE GLAZING

FOR HERITAGE WINDOWS

Can heritage windows be double glazed?

Yes, they absolutely can.

How are heritage windows double glazed?

Here's how we double glaze a heritage window, using our own tooling and process to make it far more energy efficient.



We use tooling and processes we've developed ourselves. First we remove a small section of the outer window frame around the single pane of glass, leaving a 15-degree slope along the bottom of the frame. That slope lets us fit our grand adaptor and patented dry glazing drainage system.

Next we fix a two-compound backing seal to the frame, and set the blocks that support the insulating glass unit onto the grand adaptor's locating steps. The double glazed unit goes into the window, and the front seal is fitted to the beading. The bottom bead is shaped so any moisture can drain away, while the beading stays firmly fixed to the frame.



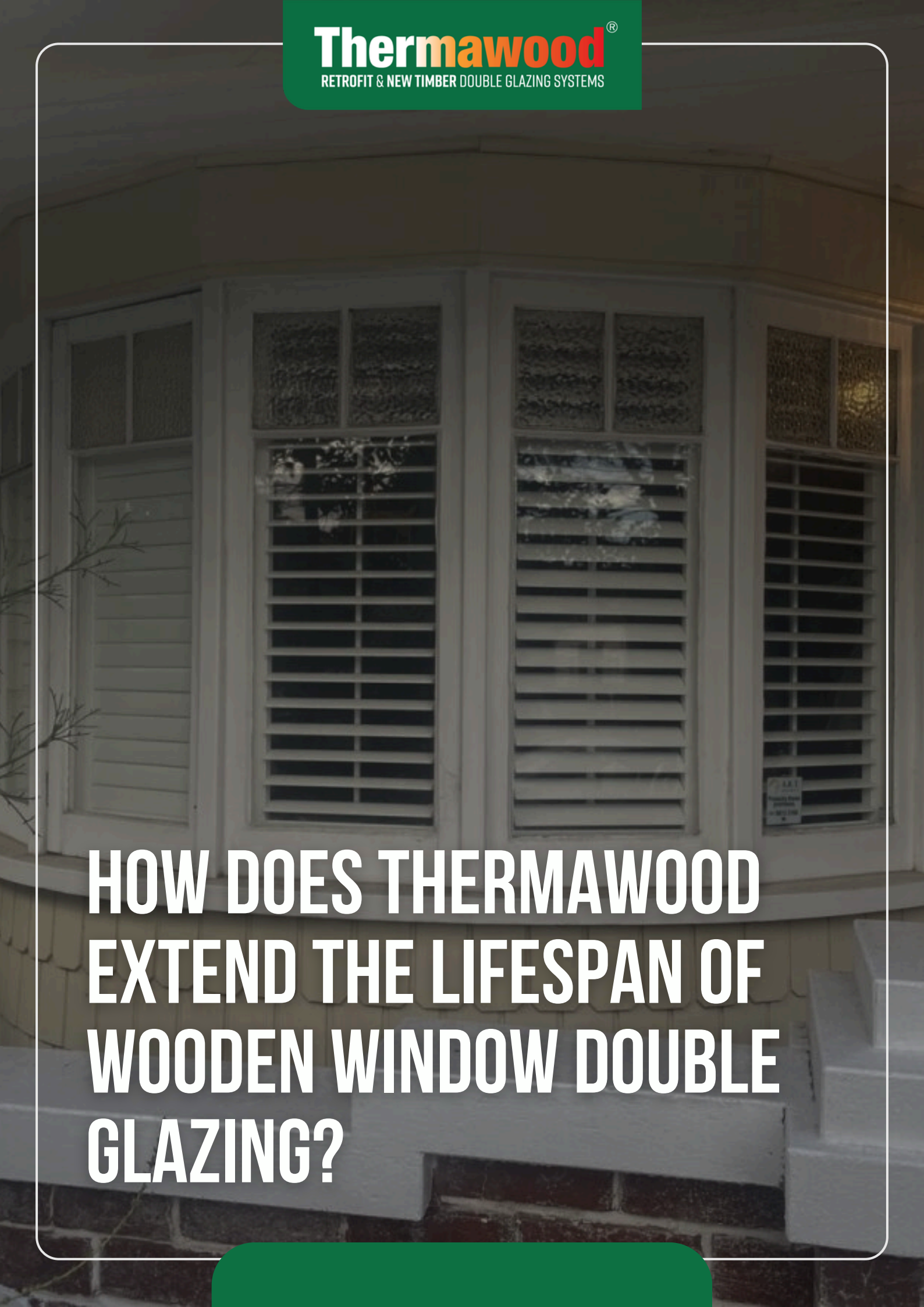
Right through the retrofit we keep the original character and look of your heritage windows. The beads sit at the same angle as the old putty, so the window still looks like itself. We also re-weight sash windows, machine in draught seals (nothing is stuck on), and refurbish any part of the window that needs it. The result is a heritage window that's far more energy efficient and opens and closes like a brand new one.

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

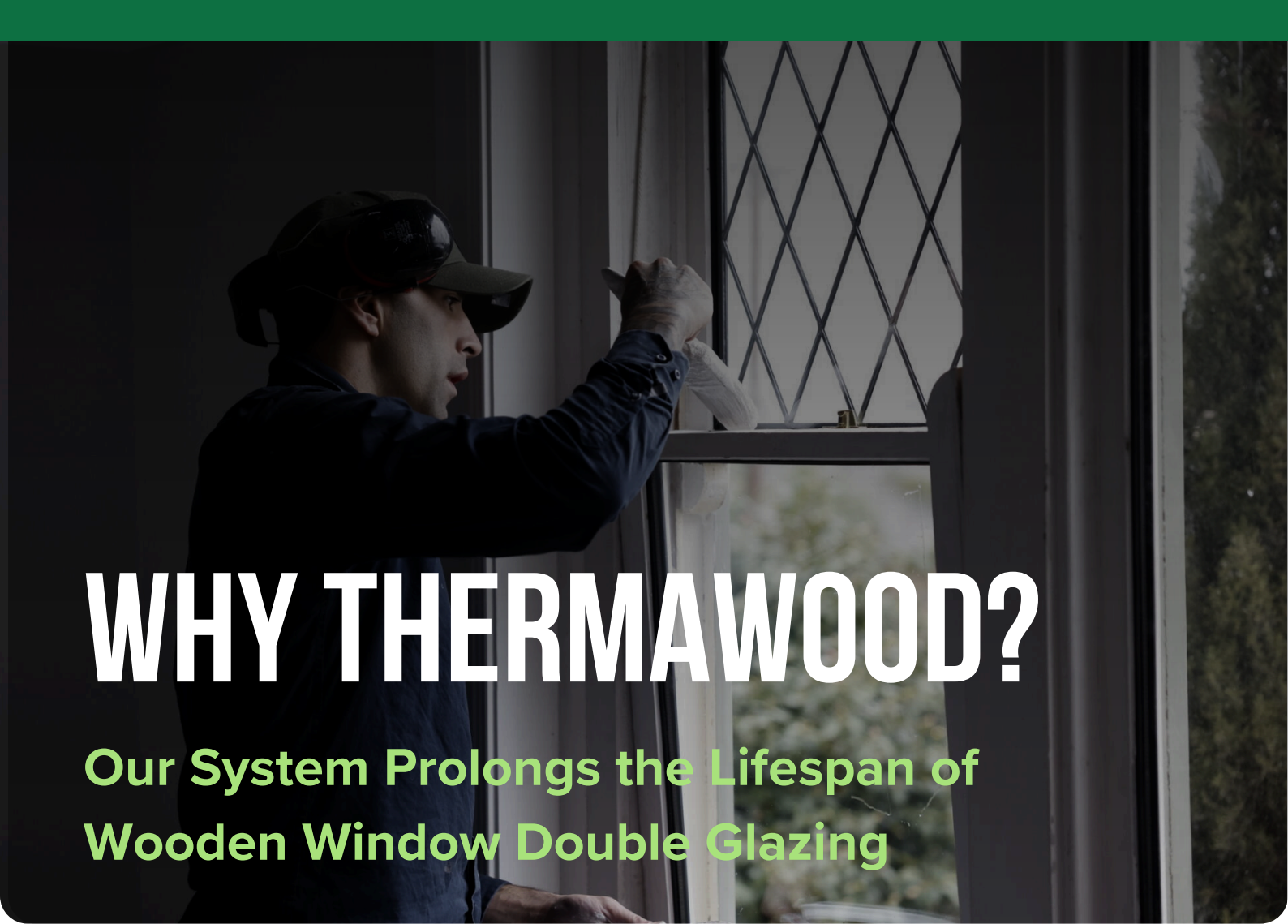
If double glazing sits in water, it fails. The most common cause of failure is poor installation. You get fogging inside the unit, which means the edge seal has gone, and the only fix is to replace the double glazing, and sometimes the frame too if water has been sitting in the timber rebate with nowhere to drain.



Double glazing should last about 25 years. What most people don't realise is that it usually only comes with a 10-year warranty, so it's meant to last at least a decade. As a manufacturer or installer, you don't want to just scrape past that 10-year mark. Imagine buying a house with eight-year-old double glazing, then having to replace the lot two years later because it was installed badly and the wooden frames have rotted. That's a rough result for any homeowner.



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 we're focused on making double glazing in wooden windows last.

We bring heritage windows into the 21st century so they perform like new double glazed windows for warmth and noise, while keeping all their original character.

Done right, your heritage windows can keep going for another hundred years.



DISCOVER THE THERMAWOOD ADVANTAGE

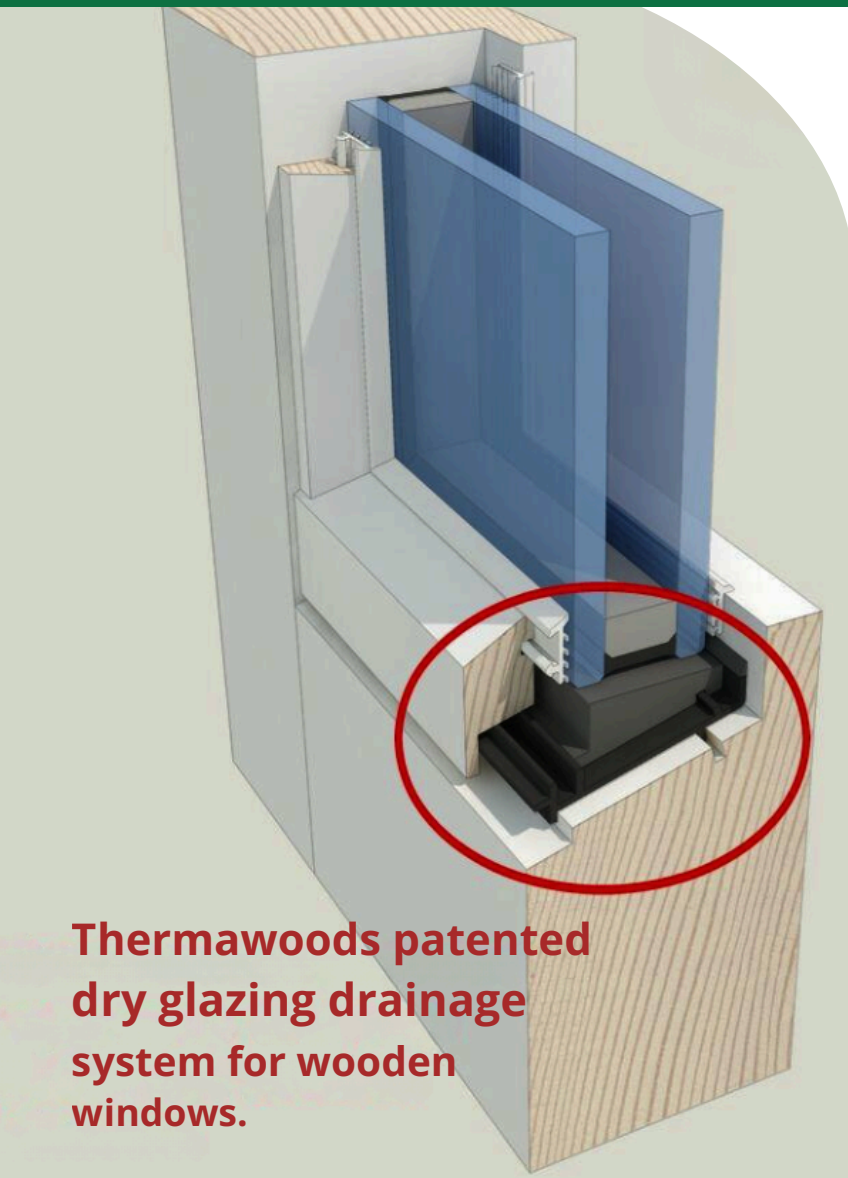
**A FOCUS ON LONGEVITY IN RETROFIT
DOUBLE GLAZING.**

Our system is built around one thing: full drainage under the double glazing. Water will always find its way into the glazing rebate, so ours lets it drain straight back out, away from the glass. That protects both the glass unit and the timber frame.

Water is the enemy of timber windows and double glazing, and that's exactly what the Thermawood system deals with. A lot of suppliers still drop double glazing into a square rebate, which is what rots the windows and fails the units.



The main problem is the polysulphide secondary seal around the glass unit. Some companies cut a square rebate and pack silicone all around the unit. Two things go wrong with that: most silicones aren't compatible with the polysulphide seal, and if there's a gap and water gets in (it always does), it turns into concentrated water vapour that eats the polysulphide seal, and the unit fails.



Thermawoods patented dry glazing drainage system for wooden windows.

This is what we call our patented dry glazing system. There are no seals or silicones in the rebate at all, apart from one small seal at the end of the drainage system (chosen to be compatible with the polysulphide seal), sealed against the timber. Nothing in the system touches the double glazing, so there's nothing there to make it fail.

We were the first to move to silicone setting blocks instead of the commonly used Santoprene. Studies around the world have shown Santoprene has compatibility issues with the polysulphide seal.

We were the first company in New Zealand to switch to silicone blocks, made from solid silicone and proven compatible with insulated glass units. It's the little details like this that make a big difference, even though most people never see them.



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



We've been in this industry for over 30 years.

Everything we've designed has come out of seeing where things fail and wanting to do better.

Best industry practice is always front of mind.

The patented drainage system started with the fogged windows we kept being called out to.

Every time it was the same thing: the seal had failed because the unit was sitting in a square rebate with no drainage.

There had to be a better way.

Aluminium and PVC windows are all designed around drainage, so if water gets in it can get out.

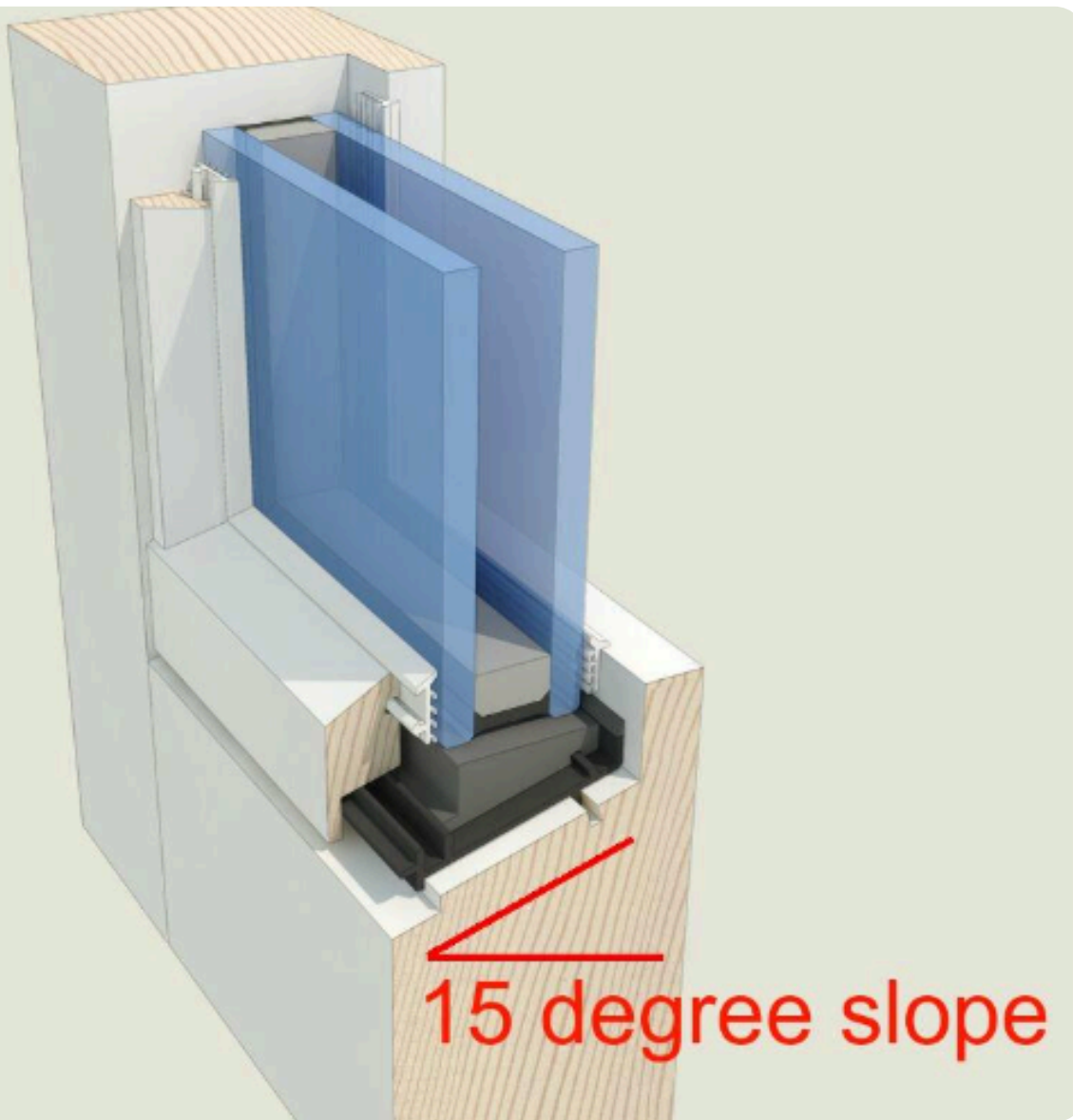
That's what we set out to build for timber windows.



By fixing the drainage, we removed the root cause of seal failure.

When you choose Thermawood you're getting a system built from decades of hands-on experience and a lot of stubbornness about getting it right.

HOW WAS THERMAWOOD'S INNOVATIVE DRAINAGE SYSTEM DEVELOPED?

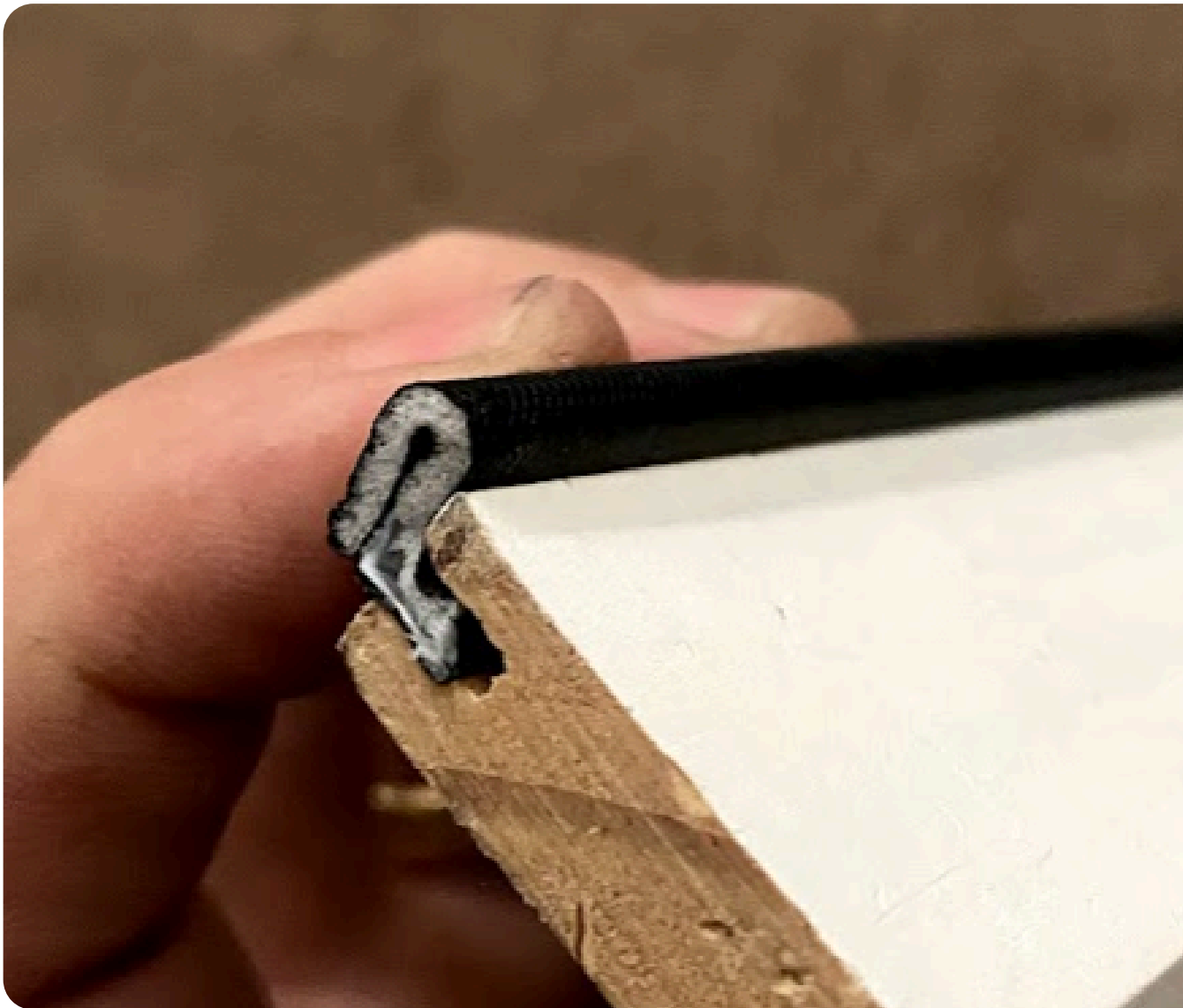


The idea behind the drainage system is simple: water will get into the glazing rebate, so it needs a clear way out.

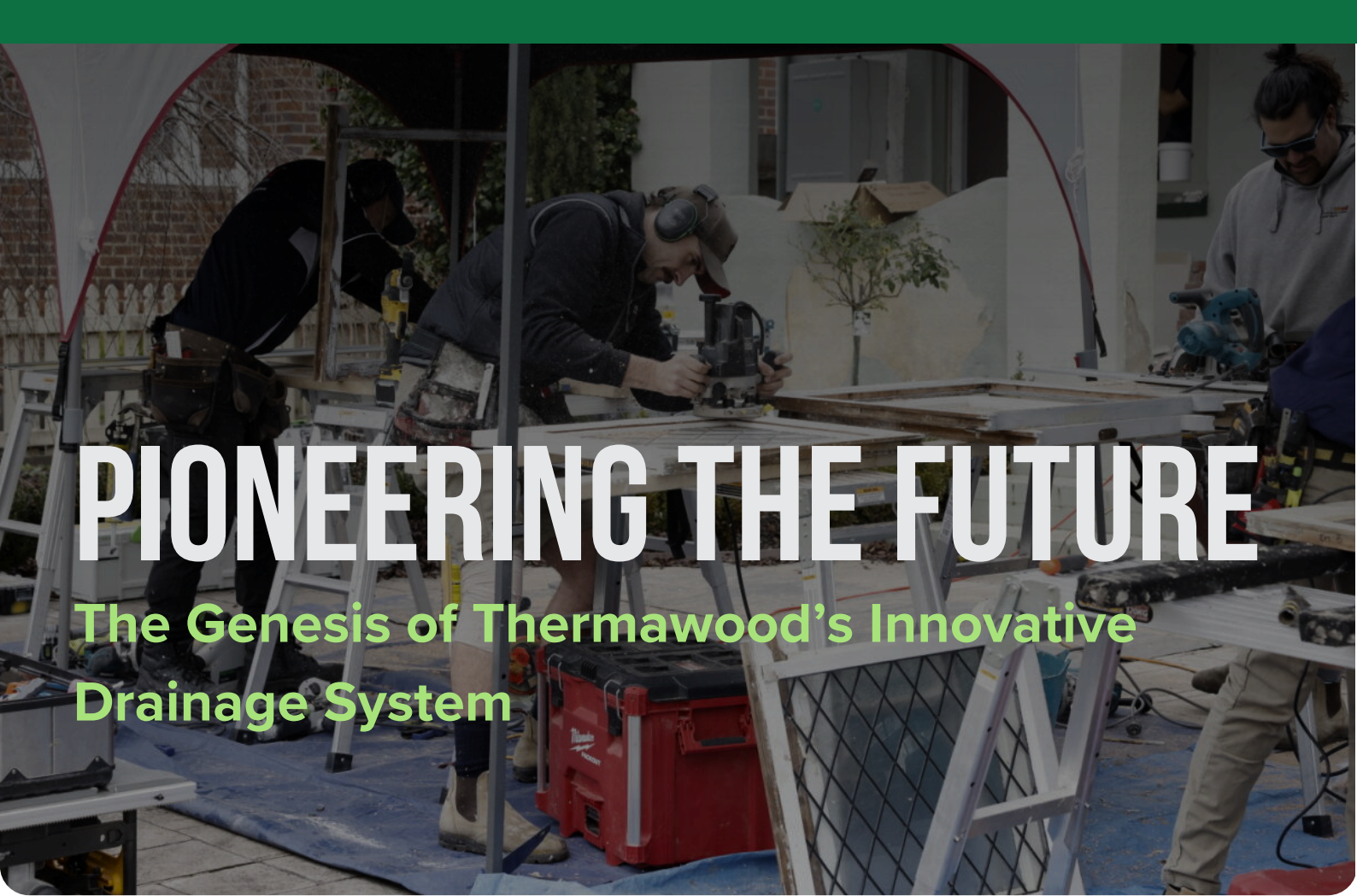
Everything sits on a 15-degree slope under the double glazing, so water is always heading in the right direction.

Under the double glazing sits our patented drainage system. There's a drainage slot every 100mm, giving water a clear path to follow.

When water gets into the rebate it runs down onto the drainage system, and the 15-degree slope and evenly spaced slots carry it away before it can build up against the glass unit or the timber frame.



Every slot is designed so it won't block up, so it keeps working year after year, even through heavy rain. It quietly does its job in the background, keeping your wooden windows and double glazing in good shape for the long haul.



PIONEERING THE FUTURE

The Genesis of Thermawood's Innovative Drainage System

Because we were the ones actually using the system, we knew exactly what we needed, so it went from idea to market quickly.

We started out retrofitting both new and existing windows, and while we saw ourselves as leaders, competitors were catching up. We already had rebated frames, a 15-degree slope and slots in the bead, but we knew we had to go further.



In 2008 I sat down with an architect mate. I sketched out what I wanted (the first drawing was actually on the back of a pie packet in a friend's glazing factory), then we drew it up properly on CAD. He put us in touch with the business development unit at Otago Polytechnic.

That's where we got into 3D printing, which back then you'd only really seen on TV. It was a bit surreal: design a part, hit print, then hold the prototype and decide whether it worked. We could tweak and reprint in a matter of weeks.

The team at the Polytechnic were amazed. They were used to this kind of thing taking a couple of years, and we did it in about three months. That was only possible because we knew exactly what we needed.

We're still developing and improving our products today, and they're all made by the same local suppliers, which matters to us.

PRESERVING HERITAGE

UNRAVELLING THE CHALLENGES FACED BY HERITAGE PROPERTY OWNERS

In our major cities and older pockets across Australia, heritage overlays run right through the older suburbs. If you own a heritage property, that brings its own challenges, especially with the windows. They're often the part of the building that's protected, so there are limits on what you can change.



We understand the balance between preserving a home and modernising it. Unlike the hard look of aluminium or PVC, everything we do is designed with heritage in mind, and we retrofit heritage windows without changing how they look. Once we're finished, you'd hardly know we'd been there.

The beads sit at the same angle as the old putty, and when we rebate the frame for the double glazed unit the beads line up exactly where the putty used to be. This isn't an add-on or secondary glazing, it's a properly sealed double glazed unit built right into the heritage window.



If you're renovating a heritage property, this gives you modern comfort while respecting the history of the place.

Whether it's a small renovation or a big one, we keep the heritage frontage untouched, much like you've seen on projects like The Block.

We bring old heritage windows into the 21st century with better insulation, less noise and proper draught proofing, without losing what makes them special. For heritage owners, we're a partner who bridges the old and the new.



DISCOVERING THE HIDDEN HERITAGE

Unveiling the Surprises of Heritage Homes

Sometimes people own a heritage-listed property without even realising it. That matters most when they're planning changes, because doing the wrong thing to a listed property can cause real problems.

We're the only company doing what we do, so a lot of owners have no idea this is even possible. It's a bit like we're selling a secret: plenty of people are sitting on the chance to improve their windows without losing any heritage value.

We often get people at Home Shows saying, "We were told this can't be done." A big part of what we do is getting the word out that there is a solution for heritage windows, one that respects the history of the building and makes it work better to live in.



NAVIGATING HERITAGE WINDOW CHALLENGES

A GLIMPSE INTO PAST SOLUTIONS

Before our retrofit double glazing came along, heritage owners tried a few different things for their ageing windows. Some put in draught seals, which do help by cutting the draughts and improving comfort, but on their own they don't give you full insulation.

Some went with secondary glazing, but it usually doesn't look great or work particularly well.

Others put in double windows, adding a second window inside the original frame. That gives good acoustic results, but it changes the look of the heritage window.





Our retrofit double glazing does more than deal with draughts, it gives you full insulation. Unlike secondary glazing, it's built into the heritage window so it keeps its original look. You get the character of the old window and the comfort of a modern one.

NAVIGATING HERITAGE GUIDELINES

**INSIGHTS FROM COUNCILS AND HERITAGE
AUTHORITIES**

In the past, councils and heritage authorities usually pointed people towards secondary glazing or window film. Things have moved on, and our retrofit double glazing is now an option.

We worked with councils and heritage bodies to get our solution known. They don't generally endorse specific companies or products, they just give owners a range of options to consider. That work has helped build awareness of what we do, and we're proud that Thermawood holds heritage approval, which shows we work within the guidelines councils and heritage authorities set.



For properties under a Heritage Overlay, the usual advice is to keep the existing windows rather than replace them, and the process is generally straight forward with the focus on keeping the heritage look.

Listed properties need approval for each job, judged on its own merits, and Thermawood has gained approval for every listed property project we've taken on.

Working alongside councils and heritage bodies, we've shown that preservation and better performance can go together, so heritage windows keep performing for generations to come.



A man wearing a dark blue ThermoWood polo shirt, a black cap, and large black earmuffs is working on a window frame. He is holding a yellow and black power drill in his right hand and a pencil in his left. The background shows a residential area with houses and trees.

ELEVATING HERITAGE WINDOWS

**TAILORED SOLUTIONS FOR VARIED
CHALLENGES**

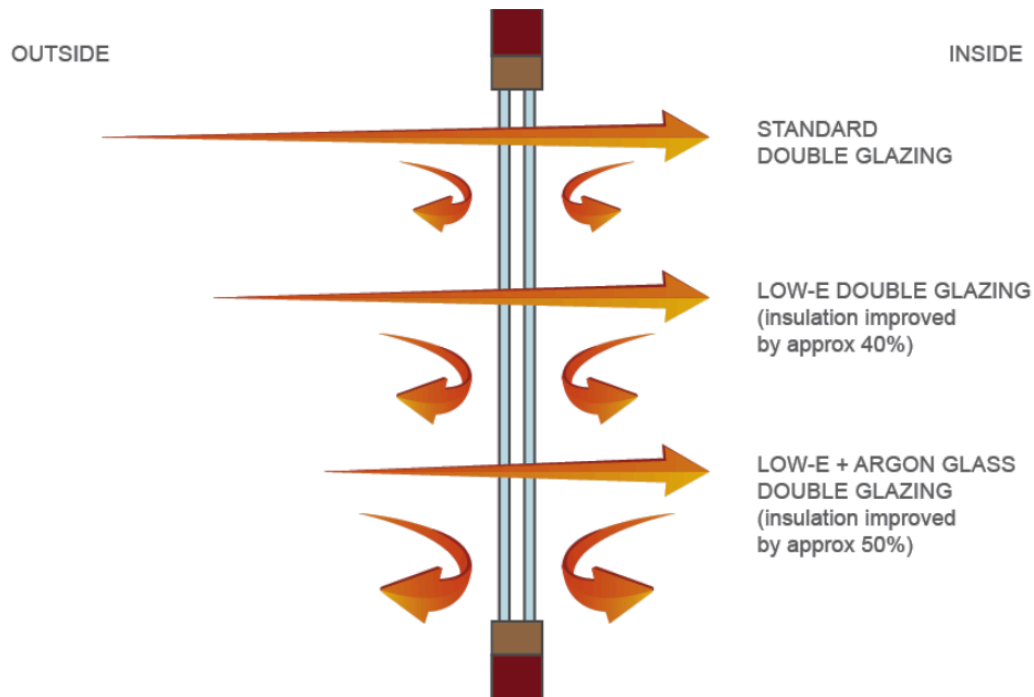
Heritage windows have great character, but they come with challenges too, mainly noise and insulation. We tailor a solution to each window's needs.



Noise is a common issue in heritage homes. We use acoustic glass to cut outside sound and make the space quieter and more comfortable.

Insulation can be a real problem in heritage homes, especially where the layout isn't ideal. We can combine Low-E glass, argon gas and acoustic glass in the same unit for the best mix of warmth and quiet.

Every heritage property is different, with rooms facing different ways and used in different ways. We look at each window on its own merits, whether the priority is noise, insulation, security or a mix, and tailor the double glazing room by room.



Before any retrofit, we do a full check of the existing windows, looking for rot, signs of water getting in, and the state of the hardware. If replica heritage hardware is needed, we look at the options.

We're upfront about pricing. Our quotes are detailed and itemise any extras like hardware, ropes or weights, so you can see the real cost.

We won't retrofit a window that isn't up to it. We check everything properly first so the result lasts and does its job.

PRESERVING HERITAGE ESSENCE

REDISCOVERING ORIGINALITY WITH
THERMAWOOD

A lot of a heritage window's character is in its original hardware, and we know how much that matters. If the original hardware is missing, we can help.



We keep a list of heritage hardware in brass, satin chrome and other finishes, so you've got plenty to choose from to match the original window.

We cut around the old glass to remove it in one piece, so if you've got heritage glass we can keep it. For leadlights, we take them out carefully, have a leadlighter refurbish them, and set them inside the double glazing. Once refurbished, a leadlight can last another 90 years, sealed and protected in there.

It's about keeping the heritage in every window, not just the look of it. There's pretty much nothing we can't do inside the window.

PRESERVING THE STRENGTH OF HERITAGE

A TESTAMENT TO TIMELESS MATERIALS



Here's the thing about heritage windows: the materials they were built from were genuinely top quality. A window that's stood for 100 to 140 years is usually made from old-growth timber, which is tough and long-lasting. You can't get timber like that anymore, we've used up the world's supply. So those old windows are full of materials that outlast anything you'd use today.

Keeping those original materials isn't just about looks, it's the sensible choice because the timber is so strong.

When we've finished, the heritage window is set to last another hundred years. It's not just a restoration, it's making sure these windows keep going for generations.

PRESERVING THE INTEGRITY OF HERITAGE

**THE ADVANTAGES OF REUSING ORIGINAL
TIMBER**

There's real value in keeping the original timber frame rather than replacing it. As a joiner, I can tell you there are a lot of good reasons to hold onto these old frames.



For a start, the original timber fits the opening. Fitting a new frame or sash into an old hole is hard work: houses settle, things move, nothing's quite square. The original timber has its dings and knocks from decades of use, but it fits the frame perfectly. It's not flawless, and that's exactly what gives it character.

We don't just retrofit windows, we look after their heritage, so every window keeps its craftsmanship and character.

As a joiner I know this job well. The old timber might have nicks and marks, but those are part of the window's story, a spot worn smooth where it slid past a lock for a century, or colonial bars with a particular look. Put it all back together and it fits like it should.

Trying to force something new into an old opening is hard, and it never looks right. Even beautifully painted, new timber next to heritage timber stands out. There's a beauty in the original that you just can't fake.

**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

People often blame a heritage window's problems on poor design, but that's usually not it. Heritage windows are generally either double-hung or casement, and the real issue is nearly always a lack of maintenance.

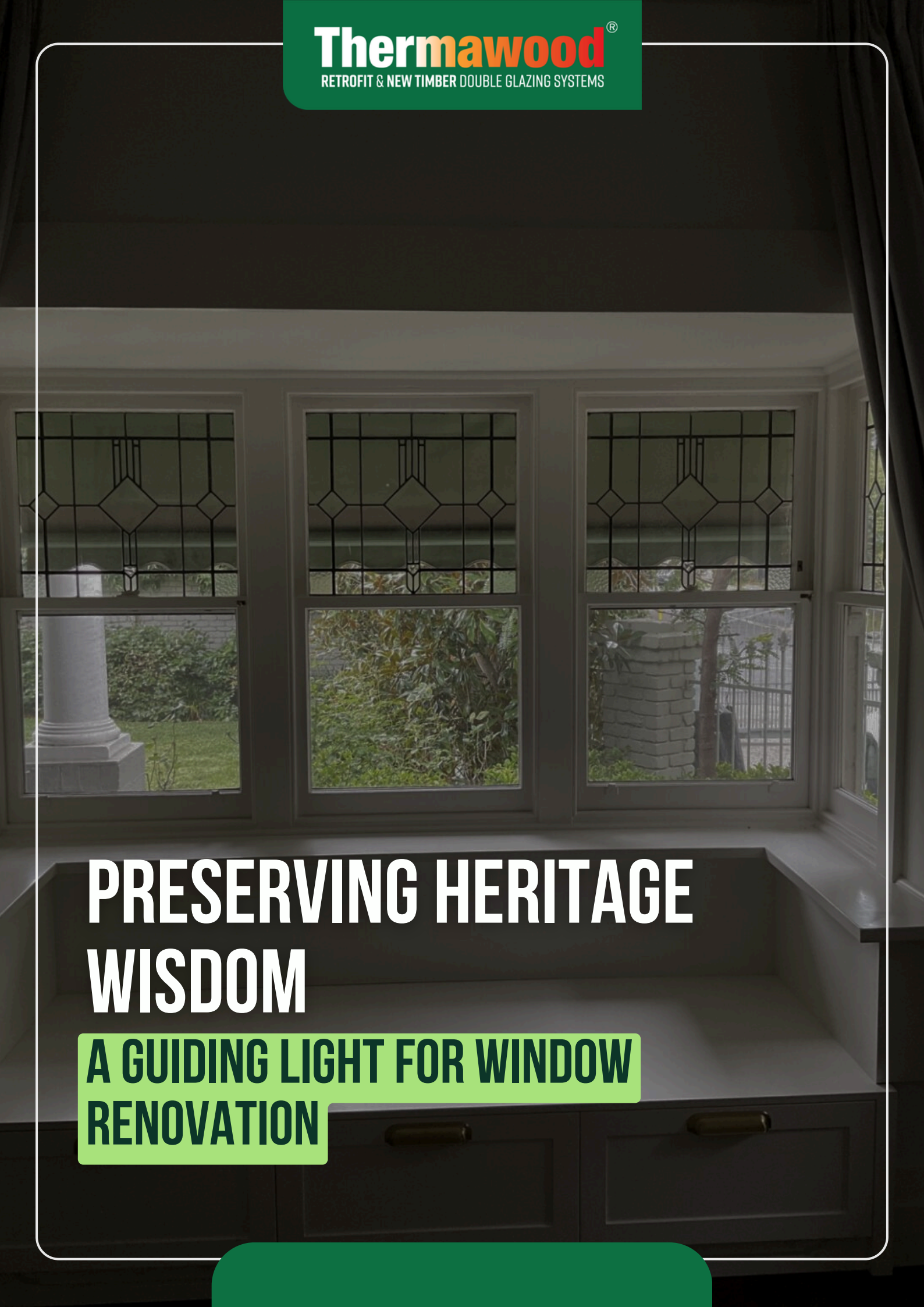
With casement windows, people see a gap at the bottom and a draught and assume the sash is twisted. Usually it's the house that's settled and twisted the frame, not the sash, so a new sash won't fix it. Because we machine our draught seals into the window (nothing stuck on), we can pick up those gaps and close them, so the draughts go.



Double-hung windows work really well when they're looked after. Trouble is, by the time we see them the top sash has usually been painted shut for years. We strip all that old paint back and get them operating properly again.



Once we've sorted out years of neglect, the windows work the way they're meant to. A double-hung window in good order slides down and closes smoothly, just like it was built to. We don't just retrofit windows, we get them working and bring them back to life.



PRESERVING HERITAGE WISDOM

**A GUIDING LIGHT FOR WINDOW
RENOVATION**

Here's the best advice we can give on heritage windows: Don't Replace, Retrofit. Before you do anything to your windows, take the time to learn what they're actually capable of.

Double-hung windows put a lot of people off, but they're actually simple once you understand how they work. We don't just restore windows, we know these ones inside out. I spent a few years in England refurbishing heritage homes and got to know double-hungs intimately, how they work and what they need.

A lot of people assume knocking them out and replacing them is the only option. It isn't. There's a lot to know before you tear into your windows, and our franchisees regularly amaze customers with how well their double-hungs work once we're done.

So before you reach for the sledgehammer, get to know your windows first. Learn what makes them tick, and you'll often find that renovating, not replacing, opens up far more than you'd expect.

READY TO EXPERIENCE THE THERMAWOOD DIFFERENCE?

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

bit.ly/GetThermawood-NZ

