



LOCKWOOD

Designed for good

Maintenance Advice

For Lockwood homes built prior to 1990



Introduction

Lockwood have been building homes since 1951. We construct our homes with low maintenance and easy living in mind, in fact it is one of the hallmarks of our iconic building system and one of the biggest benefits to owning a beautiful Lockwood home.

As with all buildings, periodic maintenance is required to keep them in good repair. This helps to ensure they perform and function as well as they did from the day they were built. Keeping up with regular maintenance and attending to small issues can also mean cost savings, avoiding bigger problems down the track.

If you have owned a Lockwood for a long time or have recently purchased an existing Lockwood home, you may be looking to update the interior or exterior for a more modern look. You may also consider improvements such as double glazing and adding insulation.

This document is a guide to maintaining Lockwood homes built prior to 1990 and also contains some starting points for updating or renovating your Lockwood home. If you require any further information, please get in touch with our team on 0508 562 596 or visit lockwood.co.nz

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Exterior Maintenance

All homeowners should inspect their homes regularly, especially if your home is by the sea or you live in a geothermal area. This way you can attend to any issues as soon as they arise.

It's important to keep soil, earth, bark and other debris away from the exterior of your home. Foundation ventilation must also be kept clear of rocks, timber, plants and gardens.

Cleaning

Regular washing and cleaning down of exterior walls and joinery is essential to remove pollutants such as moss, mould, sea salt spray, and industrial contaminants. We recommend that you wash all exterior surfaces of your building twice a year to wash away any contaminants, more frequently if your home is in a marine or geothermal environment. Use a hose and soft brush with a solution of mild soap detergent and rinse walls thoroughly after cleaning. **Never use a pressure water blaster when cleaning exterior wall surfaces.**

Particular attention should be paid to those areas high on the walls that do not get washed by rain, or do not get dried by the sun, and where dampness can remain for long periods. This includes soffits, or eaves, to remove dirt and mould from the anti-fungus varnish finish which has been applied to the timber.

When you clean the aluminium, do not forget window and door frames and the corner profiles of the building.

Treating Mould Growth

Mould may appear on natural timber surfaces and be more obvious in damp localities, more often than not on the shady side of the home. Regular washing down with Janola and water or Resene Moss & Mould Killer can prevent mould growth. Regular application of oil stain will also reduce mould problems.

Tie Rods

The tie rods in a Lockwood home provide lateral bracing in extreme weather. They are a structural element in the building and should never be cut or removed without input from an engineer.

Although uncommon, you may need to tighten the tie rods periodically. Tightening tie rods is not a difficult procedure and something you can carry out yourself.

If your home is sitting on timber piles then you can locate tie rods from underneath the house. Once located you will need to do the following;

1. Grease or spray rod / nut
2. Tighten to reach point of firm tension then back half a turn
3. Do not over tighten
4. Repeat as required or every 24 months (rule of thumb only)

If your home sits on a concrete subfloor you will need to remove the flashing baseboard to locate the tie rods this way. Once located, follow the recommendation's above. For further advice on this procedure please contact our team.



Exterior Painting

Aluminium Finish

Over time, the aluminium sheathing on your home may show signs of its age, especially if it hasn't been well maintained or environmental factors are in play. You may see peeling paint, corrosion or notice the paint finish has powdered leaving shiny aluminium. Most of these issues can be remedied by repainting the exterior.

Below are some basic DIY instructions for repainting your aluminium cladding. You may also like to speak to a professional aluminium restoration company, such as the team at alurestore.co.nz for alternative options.

We only advise using paint colours with a light reflective value of 28% or higher as dark colours on exterior surfaces can result in excessive heat absorption causing undesirable timber movement.

Please note this is general information for Lockwood home owners. We always recommend getting professional advice from a painter or your paint shop specialists before deciding on products and processes that will work in your home.

We have outlined the basic procedures for repainting the aluminium below. We do recommend speaking to a professional painter or paint shop for further information.

Preparing and painting a powdering aluminium wall

Powdering occurs due to a natural breakdown of the paint film and will need to be removed before re-painting. Make sure to check the surfaces are clean and dust free before applying each coat of paint.

- Wash down the walls thoroughly with telescopic water brush or similar to remove dust, dirt and powdering.
- Wash again using a soft bristle brush and a mild detergent such as car wash mixture.
- Rinse thoroughly.
- Rub the entire wall with a stainless steel scouring pad, medium pressure. This will rough up the existing surface so the paint will adhere.
- Wipe down surfaces with mineral spirits to ensure good adhesion.
- If there are is any bare aluminium showing, this will need to be primed with a Vinyl etch primer.
- Immediately after the primer has dried, apply an undercoat to all wall surfaces
- Apply two full coats of oil based or acrylic enamel top coat. Remember to choose a colour with a light reflective value of 28% or higher.

Remedying peeling paint on an aluminium wall

As with any painting, thorough preparation is essential to a quality finish. New paint will not stick to flaking or bubbling paint so this must be removed before any paint is applied. Make sure to check the surfaces are clean and dust free before applying each coat of paint.

- Remove any peeling or loose paint by rubbing with a stainless steel scouring pad. If required, use 180 grit wet/dry sandpaper to remove flaky or bubbled paint and feather the edges.
- Wash down the walls thoroughly with telescopic water brush or similar to remove dust, dirt and powdering.
- Wash again using a soft bristle brush and a mild detergent such as car wash mixture.
- Rinse thoroughly.
- Wipe down surfaces with mineral spirits to ensure good adhesion.
- If there are is any bare aluminium showing, this will need to be primed with a Vinyl etch primer.
- Immediately after the primer has dried, apply an undercoat to all wall surfaces
- Apply two full coats of oil based or acrylic enamel top coat. Remember to choose a colour with a light reflective value of 28% or higher.

Remedying corrosion of aluminium before painting

Any corrosion of the aluminium must be treated before painting. Also make sure to check the surfaces are clean and dust free before applying each coat of paint.

- Any corrosion must be thoroughly cleaned with a stainless steel scouring pad and water.
- Apply vinyl etch primer to the clean and dry surface that will be painted.
- Fill corrosion holes with a good quality epoxy filler, allow to dry and then sand so it is flush.
- Wash down the walls thoroughly with telescopic water brush or similar to remove dust and dirt and powdering.
- Wash again using a soft bristle brush and a mild detergent such as car wash mixture.
- Rinse thoroughly.
- Wipe down surfaces with mineral spirits to ensure good adhesion.
- If there are any bare aluminium showing, this will need to be primed with a Vinyl etch primer.
- Immediately after the primer has dried, apply an undercoat to all wall surfaces
- Apply two full coats of oil based or acrylic enamel top coat. Remember to choose a colour with a light reflective value of 28% or higher.

When painting is no longer an option

In more extreme cases where damage to the aluminium cladding is beyond repainting, you may consider over-clad your Lockwood home with our low maintenance, powder-coated aluminium weatherboard system called WeatherClad 21.

This over-clad system has been specifically designed to match the existing profile of the original Lockwood wall and can be installed without requiring a building consent. If you would like further information on WeatherClad21, please [get in touch.](#)





Timber Finish

Exposed exterior timber will naturally tend to move and be affected by harsh New Zealand UV rays. Regular painting or staining is required to ensure it stays in good condition.

Timber finishes should be cleaned regularly and oiled painted or stained every two years or as required. The procedure will depend on product used and the condition of the timber surface. We recommend getting professional advice from a painter or your paint shop specialists before deciding on products and processes that will work for your situation.

We suggest an application of biocide and protective coating should be applied to reduce deterioration. However, it may require twice yearly maintenance for this treatment to stay effective. Application of a biocide and protective coating to exposed timber surfaces will not necessarily fully prevent surface distortion or mould and fungal attack, but will minimise this natural feature of timber. Any distortion, fungal or mould growth is purely cosmetic and should not adversely affect the structural nature of the product provided the surface is adequately maintained.

Dark colours on timber exterior surfaces can result in excessive heat absorption causing undesirable timber movement, hastening deterioration. To avoid unnecessary damage and continuing maintenance, use light or neutral colours and stains with a light reflective value of 45% or higher.

Soffits

To maintain soffits, treat all areas with a Moss and Mould Killer and allow to dry. Using a stiff scrubbing brush or broom and hose, clean thoroughly and allow to dry. Prepare the surface by sanding to a clean finish. As with any painting, thorough preparation gives a better finish and we encourage you to get professional advice from a painter or your paint shop specialists especially if there are water spots or staining you would like to remove.

After sanding, apply three coats of high gloss anti fungus polyurethane with a light sand in between coats. Ensure that the surface is cleaned of any dust or pollutants which may be deposited between coats.



Interior Maintenance

The solid timber interior of a Lockwood home requires very little maintenance and offers a timeless look without requiring frequent painting or interior decorating. However it is important to keep your home clean and ventilated to avoid dampness and mould.

Ventilation

Moisture is the greatest potential cause of damage to the interior timber surfaces of a home. Humidity promotes mould grown on walls, ceilings and soft furnishings such as curtains and increases condensation. Lockwood's solid timber system offers has the ability to "breathe", helping to regulate moisture, temperature and humidity, but to ensure your home stays dry and healthy, it is important that you make sure it is properly ventilated.

The most important areas to ventilate are those where you use water. To avoid condensation, pay particular attention to allowing steam to easily escape in the kitchen, shower, bathroom and laundry. As a general rule, a nearby window opened about 100mm will suffice. Make sure that your clothes drier has correct and adequate ventilation to the outside of the building and consider using a dehumidifier if you are unable to ventilate the home regularly.

Moisture content of the timber in the Lockwood components of the building should be no lower than 10% and no higher than 16%. For information on installing ventilation systems in older Lockwood homes with no roof cavity please visit www.homeventilation.co.nz/no_roof.htm

Walls, ceilings, posts and beams

If you see a build up of dust and grime or see mildew or mould on interior finishes, they can be cleaned using a solution of warm water and mild detergent.



Interior Updates

Interior Painting

Whether you decide to paint your entire home or just a feature wall here and there, a lick of paint can give a whole new look to any space. Painting the interior of a Lockwood can be done as a DIY project or a painter would be able to do this for you.

Please note this is general information for Lockwood home owners. We always recommend getting professional advice from a painter or your paint shop specialists before deciding on products and processes that will work in your home.

- Thoroughly sand down the entire surface that you are targeting, including the grooves between boards. At a minimum you will need to lightly sand the existing polyurethane finish to provide some adhesion for the new paint. (You do not have to sand all the polyurethane off.)
- Fill the timber knot holes using PAL Contract Filler, a quick drying water based filler available from most hardware or paint stores.
- Sand the filler so it is flush with the surface.
- The timber knots will need to be primed with a good primer/sealer to ensure the colour doesn't bleed through. We recommend using a high quality product such as Zinsser B-I-N Sealer or Cover Stain to prime both the knots and the boards you are going to paint.
- Give the primer/sealer coat a light sand and dust.
- Apply two full coats of acrylic paint of your choice.
- Although not necessary many people use a flexible gap sealer (like Selleys no more gaps) in the grooves of each board, so the paint doesn't crack when the wall boards move.

For inspiration on painted interiors, visit our galleries: lockwood.co.nz/gallery-board/painted-interiors/



Interior Blonding

A popular finish in modern Lockwood homes is the blonded look where a whitewash paint is applied to the interior timber to give it a light Scandinavian feel. On new Lockwood builds, the blonding treatment is a tinted polyurethane which is applied to the raw timber. On older, Lockwood homes, the timber will have been previously polyurethaned, oiled or stained and the results of applying a blonding treatment can vary greatly.

If you are looking to DIY, try an inconspicuous area first to ensure that you will be happy with the end result. It's always a good idea to get professional painter or your paint shop specialists before deciding on products and processes that will work in your home.

There are few different products available which allow for a similar blonding treatment on older Lockwood homes. Timbakote make a product called "Lockwood Blond" which is applied by brush and often ragged-off for a more even finish. Dulux Intergrain, is a polyurethane which has been tinted and can be brushed or sprayed onto the surface. We encourage you to talk to a paint specialist about the application, advantages and limitations of any product you choose.

You will need to thoroughly sand down the entire surface that you are targeting, including the grooves between boards before applying any blonding treatment.

For inspiration on blonded interiors, visit our galleries:

lockwood.co.nz/gallery-board/blonded-interiors/

Insulation

Insulation has a huge impact on the comfort of your home, in winter it helps keep your home warm, in summer it helps keep your home cool. Many homes in New Zealand have little or no insulation, especially if they were built prior to 1978 when ceiling insulation became compulsory under the building code.

Older Lockwood homes have the advantage of being built with solid timber which provides insulative properties above that of uninsulated conventional homes, however, unless the home was built after 2013, retro-fitting insulation when and where you can is recommended.

The measurement of efficiency is measured in "R"s, the higher (well-distributed Rs) the better. Increasing the R rating can make a dramatic difference to your comfort levels in the long run. New buildings are required to meet R-values in floor, walls and ceilings. The achieved R-values vary from floor to wall to ceiling and evenly distribute the efficiency of the insulation throughout the building. The same distribution should be considered when retro fitting insulation.

Ceiling Insulation Table for older Lockwood Homes

Year	Under purlin size	Dummy rafter size	Roof purlin size	R value achieved
Up to 1979	10mm	n.a.	45mm	nil
1980 - 2000	n.a.	70mm	45mm	R1.5
2001 - 2008	n.a.	90mm	45mm	R2.93
2009 -----	n.a.	140mm	45mm	R3.5

Ceiling insulation is the most important insulation in the house. Since hot air rises, improving ceiling insulation to stop the warm air escaping through the ceiling is the most effective way of reducing heating bills. Older Lockwood homes with high, sarked ceilings, have insufficient roof space to install insulation and will require some building work to insulate to today's standards. It will be most cost effective to coordinate the insulation upgrade with the re-roof of your Lockwood home.

For an older Lockwood home with 62mm solid timber exterior walls, it would be best to upgrade your ceiling to R2.93 maximum. To achieve this would involve the removal of roofing, spouting, 45mm roofing battens and 10mm under purlins. Existing fascia and barge boards can be retained, new fascia and barge boards can be attached to the existing timbers. New dummy rafters, roof purlins, insulation, self support papers, roofing and flashings will be required.

Since the improvements involve changing the means of fastening the roof cladding to the building structure you should check with your builder to determine whether the local authority will require a building consent.

Keep in mind moisture problems could arise if insulation is poorly installed. Talk to your designer or professional installer about whether you need a gap between your insulation and roofing underlay.

If you decide to engage your own builder or roofing contractor, we can supply them with the technical details required, however we recommend that a Lockwood Contractor carries out the work and they follow the approved Lockwood details and fixings.

Underfloor Insulation

The second most important place to install insulation is under the floor. Homes built on concrete slabs provide sufficient insulation but uninsulated timber floors can be a major source of unnecessary heat loss. If the space under the floor is large enough to access, it is easy and cost-effective to retrofit under-floor insulation. Bulk fibre (such as Pink Bats) or polystyrene insulation can be installed between the joists.

Many old houses had previously been insulated with aluminium foil. Although it had no R value, it would trap the air and reflect back escaping radiant heat. Retrofitting or repairing foil insulation in houses is now banned in New Zealand due to safety concerns. If you have foil insulation with rips or holes, it should be replaced with bulk fibre or polystyrene.

It also pays to install a layer of polythene ground sheet under the house to reduce moisture entry and help the insulation work better.

Requirements under the Residential Tenancies Act

The Healthy Homes Guarantee Act has recently been passed into New Zealand law to ensure that every rental home in New Zealand meets minimum standards of heating and insulation. If you are renting out a Lockwood home you will need to state the R Values of the walls, floor and ceiling in any tenancy agreements. Lockwood homes have always been built to meet building code at the time of construction and the age of the home will determine what insulation was installed in the ceiling and underfloor. If you are unsure, your local council should have this information. The table below gives insulation values of the walls in Lockwood home based on its age.

Year	Wall Construction	R value achieved
Up to 1999	62mm solid timber	0.64
1999 to 2013	97mm with foam insulation	1.36
From 2013	107mm with foam insulation	2.1

By July 2019, the Residential Tenancies Act also requires all rental properties to have ceiling and underfloor insulation installed. However, exemptions to the law apply if installing ceiling and/or underfloor insulation is not 'reasonably practicable'. If major building work is required, such as replacing the roof to add ceiling insulation, the home will likely be exempt.

If you're unsure if your home qualifies for an exemption, or requires an assessment visit www.tenancy.govt.nz/maintenance-and-inspections/insulation/compulsory-insulation/

Renovations and Additions

There is a common misconception that Lockwood homes can't be altered or have additions made. In fact, almost anything is possible with a Lockwood home, as it would be with conventional building.

As Lockwood homes are a specialised product, we recommend getting in touch with us early if you are contemplating renovations or additions. Lockwood is a unique building system and any structural work should be carried out by builders and consultants familiar with the product. It's also helpful to start with a copy of the plans of your home which in most cases are available from your local Council.

When you [contact us](#) we will put you in touch with a local Lockwood Contractor who can manage all stages of the project, or supply materials as needed. We can also connect you with experienced Lockwood designers and engineers if required.

Retro-fit Double Glazing

Double glazing can make significant improvements to thermal comfort in your home. It can also reduce external noise and reduce or remove condensation build up in cold weather.

When retro-fitting double-glazed units to replace existing single glazed frames in Lockwood homes, we recommend replacing the aluminium frame with a new double-glazed insert, or replacing the glass alone.

Leaving the existing timber subframe, flashings and wedges ensures the integral parts of the Lockwood wall system remain in place. The home will retain the Lockwood structural elements and the Lockwood compliance method for external moisture and relative clauses of the building code.

Any aluminium joinery manufacturer will be able to retro-fit double glazing into your Lockwood home. They can [contact us](#) if they need further information or construction details