

Maintenance Advice

For Lockwood homes built prior to 1990

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1. Cleaning

We recommend that you wash ALL the exterior surfaces of your building twice a year using a hose and soft brush with fresh water, to wash away any contaminants.

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.

Mould Growth on Natural Timber surfaces

Mould growth will be more obvious in damp localities and will occur 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.

2. Ventilation

Moisture is the greatest potential cause of damage to the interior timber surfaces of a home and it is important that you make sure that your home is properly ventilated. Obviously, the most important areas to ventilate are those where you use water: kitchen, laundry, bathrooms, and the toilet.

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.

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

3. Building Protection

Only galvanised, stainless steel, or aluminium nails or screws should ever come into contact with the aluminium cladding. Other types, such as brass or copper nails and screws must never be used because they can cause corrosion of the aluminium.

Foundation ventilation must be kept clear of rocks, timber, plants and other obstructions.

The aluminium sheathing must never be punctured in any way to allow water to enter the timber.

Whenever you wish to make any attachment to the building, a layer of 'damp course' must be fitted between the wall and any material which you attach to the wall.

4. Tie Rod Maintenance

Tie rods should have been tightened shortly after the building was completed. Although uncommon, you may need to tighten the tie rods. 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 your Lockwood Franchised Builder.

5. Timber Finish

It is recognised that exposed exterior timber will naturally tend to move. Splits and cracks may appear and there may be gum leakage, fungal and mould growth.

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.

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.

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.

Dark colours on timber exterior surfaces can result in excessive heat absorption causing undesirable timber movement. This can be significantly reduced by the use of light or neutral colours and stains.

6. Recommended Repainting Procedure – Aluminium sheathing

Powdering paint on aluminium (due to a natural breakdown of the paint film on non-porous metal - as with a motor vehicle)

1. Wash down the walls thoroughly with a mixture of household detergent and water. This process may involve the use of a stiff brush.
2. Wash again using a soft bristle brush and clean water.
3. Rub the entire surface of the walls with a wire brush or scouring pad. N.B. The brush or scouring pad must be STAINLESS STEEL.
4. Prime any bare aluminium with one coat of etch primer.
5. Immediately after the etch primer has dried, apply one coat of oil based undercoat over the entire wall surfaces.
6. Apply two full coats of semi-gloss high quality acrylic top coat to the entire wall surfaces.

Note: Ensure that the surface is cleaned of any pollutants which may be deposited between coats (in particular, sea salt spray). Acrylic paint can be painted over oil based, but oil based cannot be painted over acrylic.

Peeling paint

1. Rub the entire surface of the walls with a stainless steel wire brush or scouring pad.
2. N.B. The brush or scouring pad MUST BE STAINLESS STEEL.
3. Ensure that all loose paint is removed.
4. Follow instructions 1-6 above.

Corrosion of aluminium (Due to attack by pollutants and lack of cleaning)

1. Any corrosion spots must be thoroughly scrubbed with a STAINLESS STEEL brush or scouring pad.
2. After etch primer has been applied, corrosion holes should be filled with a good quality epoxy filler and sanded off flush.
3. Follow instructions 1-6 above.

Soffits

1. Treat all areas with a Moss and Mould Killer, allow to dry, then using a stiff scrubbing brush or broom and hose, thoroughly clean and allow to dry.
2. Sand surface to a clean finish.
3. Apply three coats of high gloss ANTI FUNGUS polyurethane with a light sanding in between coats. N.B. Ensure that the surface is cleaned of any pollutants which may be deposited between coats (in particular, sea salt spray).

Decks, Posts and Rails - Barge, Fascia and Baseboards

Due to heat attraction, if these materials have been oil stained or painted a dark colour, they are prone to buckling, cupping and even splitting. We strongly recommend they be painted white or lighter colours.

Interior re-varnishing

Please visit your local hardware store or visit the Timbakote website for further information on interior re-varnishing and also for the Lockwood Blond product if wanting to lighten the colour of interior walls. www.timbakote.co.nz

7. Insulation in Older Homes

Ceiling 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. 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. The measurement of efficiency is measured in "R"s, the higher the R rating the better. Refer to the following data to determine the R value based on the age of your Lockwood Home

| <i>Year</i> | <i>Under purlin size</i> | <i>Dummy rafter size</i> | <i>Roof purlin size</i> | <i>R value achieved</i> |
|-------------|--------------------------|--------------------------|-------------------------|-------------------------|
| -----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 |

Increasing the R rating can make dramatic difference to your comfort levels in the long run. New buildings are required to meet R-values in floor, walls and ceilings. Double-glazing also contributes to achieving the R-value requirements. 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.

For an older Lockwood home with 62mm exterior walls it would be best to upgrade your ceiling to R2.93 maximum. This would provide the most efficient balance.

If your home has 62mm exterior walls and R2.93 ceilings the efficiency gains by upgrading to R3.5 in the ceiling would be minimal unless the walls and glazing were also upgraded.

8. Retro Fit Insulation in Older Lockwood Homes

Retro fitting would require the removal of the roofing it may be most cost effective to coordinate the insulation upgrade with the Re-roof of your Lockwood home.

Existing roofing in good condition can be re used but will require screw fixing and as the roof will move slightly forward into the spouting, new top ridge, barge and wall flashings that comply with E2 acceptable solutions will be required.

Recommendation - To achieve R-value of 2.93 for pre 1980 homes;

- 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 90x45 dummy rafters, 70x45 roof purlins, insulation, self-support papers, roofing (or reuse existing) and flashings (refer to detail drawings)

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. We recommend that a [Lockwood Franchisee](#) carries out the work and they follow the approved Lockwood details and fixings.

9. Underfloor Insulation

Bulk underfloor insulation products that are well fitted between the joists with a minimum thermal resistance of R1.4 are recommended.

Websites to visit for more information

Energy efficiency and Conservation Authority (EECA) www.eeca.govt.nz

Energy Wise News on Line; www.energywise.co.nz

10. Alterations and Additions

It is possible to make alteration and additions to your existing Lockwood home including adding double glazing. For more information we suggest you seek the advice of your local Lockwood Builder on 0508 562 596 or visit www.lockwood.co.nz