MAINTENANCE GUIDE

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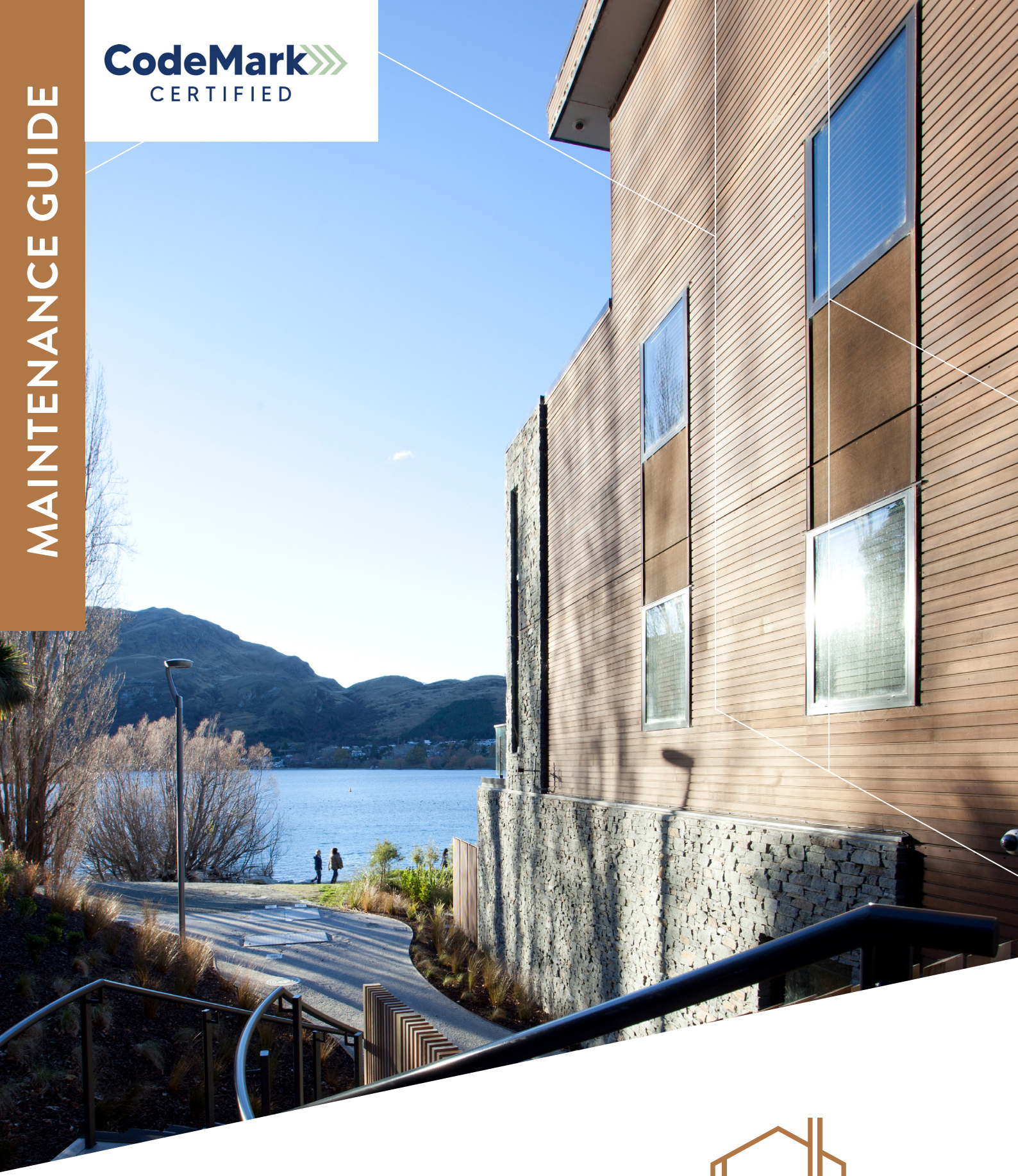

JSC Exterior Timber Weatherboard Cladding

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JSC

PREMIUM ARCHITECTURAL & BUILDING SOLUTIONS

Contents

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BUILDING MAINTENANCE

Every building requires maintenance to preserve its appearance as well as to prolong the life of its components.

Significant factors that influence maintenance intervals include:

- **Site Location:** Based on the build location and build risk matrix score, consideration must be given to proximity to ocean and exposure zones when selecting materials as not all products will perform well in all areas
- **Building Orientation:** Northern and Western facing areas tend to get more exposure to weather elements than those of Southern and Eastern orientation
- **Site Environment:** Areas of the building that are more exposed to weather, UV, humidity, dust/pollen, and proximity to vegetation often need more maintenance.
- **Desired Look & Design:** Unplanned maintenance can be avoided if desired look and design of the building takes account of the need for careful and periodic maintenance, budgeting, monitoring, and execution.

JSC recommends that the building is inspected and cleaned annually at a minimum. This includes roofs, gutters, walls, joinery, and walking areas.

Annual cleaning removes any surface contaminants such as dust, pollen, and mould before they become ingrained.

A regular brush and occasionally washing away of leaves, soil and/or debris will help keep the surface clean and defend against fungal growth.

Also refer to: BRANZ Good Practice Guide – Timber Cladding 3rd edition

JSC WEATHERBOARD MAINTENANCE

Maintenance intervals for timber weatherboards largely depends on the coating system used and which areas of the cladding are subject to greater wear from sun, wind, and rain.

There are many other factors that can contribute to early maintenance requirements such as the proximity to vegetation, obstructed cavity air passages at the bottom plate, sea spray, poor installation and more.

Also refer to: BRANZ Good Practice Guide – Timber Cladding 3rd edition

GENERAL

Uncoated & Clear Coated Timbers

All timber surfaces upon exposure to UV turn grey. Silvering off is a purely natural process and will be more pronounced when using clear or transparent coating colours. The onset and degree of greying depends on exposure to the weather elements, chosen protective coating, and colour.

Timber Movement

All timbers are susceptible to expansion and contraction. Factors that affect the amount of movement can include:

Environment:

- Low humidity levels
- Sun exposure – Direct or indirect
- Substrate moisture levels – e.g., fresh concrete or subfloor airflow into the cavity.

Product Selection:

- Timber selection – Thermally Modified Timbers are more dimensionally stable
- Grain orientation – Vertical/ Quarter cut versus Flat sawn/Crown Cut
- Profile selection – Centre groove profiles can be more prone to movement
- Width of weatherboard – Narrower profiles have comparatively less dimensional movement
- Thickness of board – Thicker boards increase stability
- Type of coating and quality of application.

The above factors must be considered at the time of design to allow room for timber movement. JSC weatherboards are designed with a 2mm expansion gap and to be fixed with provision for some movement in the board. Double nailing or otherwise restricting the timber movement can cause problems such as splitting, cracking, cupping, and bulging which can affect weathertightness of the cladding if left unnoticed.

Cupping

Cupping generally occurs when heat and moisture levels at the back of boards are significantly different to those on the face. The differential can be accentuated when using:

- Dark colour coatings
- Wider and thinner profiles
- Centre groove profiles
- Improper fixing.

Surface Checks

In some timbers some fine surface cracks can appear after initial exposure which are a natural occurrence. These do not present any problems if normal maintenance and recoating regimes are followed.

NOTE: Under no circumstances water-blasters should be used as the pressure can leave visual marks or physical damage to the timber.

Black Spots

Airborne impurities such as soot, pollen, or metallic dust can also cause black spots on the surface of the timber. Black spots can be minimised by using a good quality exterior grade cladding coating. Black spots often disappear over time, however thoroughly and regularly cleaning also helps to remove them.

Mould

Prolonged presence of moisture can promote mould growth. Conditions that encourage mould growth in timber include:

- Warm and humid conditions with restricted air flow
- Restricted air flow resulting in dampness
- Moisture uptake on site due to poor storage and handling prior to installation
- Sheltered and south facing walls.

CLADDING INSPECTION

Exterior cladding must be inspected regularly, and areas needing attention must be addressed to prevent damage to other cladding elements and to avoid moisture entry.

CLEANING

- Annual cleaning is recommended at a minimum to remove any surface contaminants such as dust, pollen, or mould before they become ingrained.
- Cut back any vegetation that has grown too close to the weatherboard as it can restrict air flow and damage the coated boards.
- Regularly brush and wash away leaves, soil or debris to keep the surface clean and defend against fungal growth.
- Attend to areas that might look discoloured or scratched to minimise further deterioration.
- Clean weatherboards with a soft brush or car cleaning brush and mild detergent, using a standard hose.
- Pre-soak the timber surface, then start washing in small workable sections at a time. Follow the full length of the boards from top to bottom with back-and-forth strokes.
- Under no circumstances should water-blasters be used as the pressure can leave visual marks or physical damage to the timber.

Also refer to: BRANZ - Moss, mould or lichen on exterior walls and BRANZ - Dust, dirt, air-borne salt build up on wall surfaces

COATING

Coating selection, the application process, and maintenance coats are significant components of weatherboard cladding maintenance. Choosing the right coating for the build can extend maintenance cycles but cladding on highly exposed or very sheltered areas of a building require more frequent maintenance.

All coatings systems require upkeep to preserve their appearance and to protect the timber cladding.

The life of a coating system depends on the degree of exposure to external elements. Projects in urban areas, might be more exposed to dirt and airborne pollution and can require more frequent cleaning in order to maintain the colour and condition of the cladding.

Material compatibility between the cladding elements can also play a major role in the cladding aesthetic. For example, only stainless-steel nails are to be used to fix Thermally Modified Timbers as silicon bronze nails have tendency to leech and mark the boards. Check material compatibilities with the product manufacturer before use.

Boards coated in dark colours are more prone to dimensional movements, cupping, and splitting. Due to increased heat absorptions, Thermally Modified Timbers are more stable than traditional timbers and perform better with dark colour coatings.

Depending on the timber selected, weatherboards can either be stained or painted.

STAIN FINISH

Clear and very light pigmented coatings generally age quickly and require more frequent maintenance and re-coating. JSC supplied weatherboards, mouldings, trims, and all other timber accessories must be coated on all 4 sides before installation and a second coat should be applied on all visible parts of cladding after installation. The second coat completes the coating system and further develops the colour and protects the timber surface beneath. Cut ends must be double-coated during installation.

Coating with tinted or pigmented wood oil containing UV inhibitors or absorbents can help to retain the original look of the cladding and minimise surface checking. However, regular maintenance is needed as per the coating manufacturer to maintain optimal appearance.

Also refer to: BRANZ - Loss of original timber colour on clear-finished timber weatherboards, BRANZ - Loss of original timber colour on stained timber weatherboards, and BRANZ - Uneven weathering of stained timber weatherboards.

PAINT FINISH

When a paint finish is specified, all 4 sides of the weatherboards and cut ends must be painted with an exterior grade premium primer and undercoat/s prior to installation. Once installed, topcoats must be applied to all the visible areas of cladding as per the paint manufacturer's instructions. We recommend extra topcoats to be considered for paints, especially in coastal environments.

For optimum performance of paint system:

- Appropriate preparation to be carried out
- Choose a good quality paint
- Choose colour with acceptable LRV from coating manufacturer depending on chosen timber substrate.

Painting should be carried out in accordance with AS/NZS 2311:2017 Guide to the painting of buildings. Manufacturer's painting instructions should also be carefully followed.

RECOATING

All coated timber cladding will require recoating at some point. The frequency of recoating will depend on several factors, such as the way the original finish was applied and the degree of exposure.

Generally, northern, western, and areas with heavy weather exposure will require recoating more often than the southern and eastern areas, though the latter will still require regular cleaning.

A survey of the elevations of a building prior to any maintenance programme could indicate the most exposed areas that may require more frequent inspection and care.

If coating maintenance is not carried out regularly, the timber surface will begin to discolour and deteriorate, and can make restoring the original appearance more time consuming. It is therefore vital to follow the coating manufacturer's maintenance instructions.

Paint finished weatherboard should be carefully inspected to ensure that the paint is in good condition and that joints, corners and junctions with other building materials are intact and weathertight. Any sign of deterioration such as bubbling, flaking, or peeling should be addressed and rectified immediately.

RECOATING CONSIDERATIONS

- At the time of recoating, it is important to check with the original coating supplier the compatibility of new coatings.
- Even if the original finish is to be re-applied, it is vital to confirm with the coating manufacturer, what preparation may be required prior to recoating.
- The level of preparation usually depends on the level of deterioration of the original finish that has occurred.
- To address differential weathering (variation of colour and coating performance across the wall surface) recoating with a more highly pigmented colour can be considered. However, darker colours can absorb more heat resulting in greater thermal expansion and contraction which can result in poor coating performance.

For optimum performance of your new coating, substrate preparation, application, and maintenance should be carried out as per the coating manufacturer's instructions.

For coatings supplied by JSC see: JSC Coatings Exterior Wood Oil Range

For information on maintaining light colour coatings see: BRANZ - Cracking/flaking of film on stained or clear-finished weatherboards

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