

**Surface Information and Preparation Data Sheet (SIPDS)**  
**SIPDS No. 2**  
**Timber and Timber Composites – interior and exterior**



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## Introduction

This SIPDS covers the preparation requirements as well as related issues pertaining to interior use of timber and timber composites (e.g. plywood and medium density fibre wood MDF), interior and exterior timber used in residential and commercial construction for both new work and repaints.

Decking and flooring, new, painting weathered (unpainted) timber and repaints are covered. In addition, Linea, a timber replacement weatherboard, is also addressed.

It should be read in conjunction with the relevant standards **AS/NZS 2311:2009** "Guide to the Painting of Buildings" and the specification.

Relevant information on the substrate is covered in the **Substrate Information Notes** below. Where appropriate, additional information pertinent to the substrate preparation requirements is included with the specification.

The preparation requirements for various timber and timber composites – interior and exterior are covered in the **Surface Specification (Spec) Sheets**, which are referenced by substrate type.

If the issue encountered or the surface is not covered in this SIPDS; if there is an inconsistency between documents or data sheets; or if you are unsure of the most appropriate and or best preparation methodology or paint system, please contact Resene Technical Services.

## Substrate Information Notes

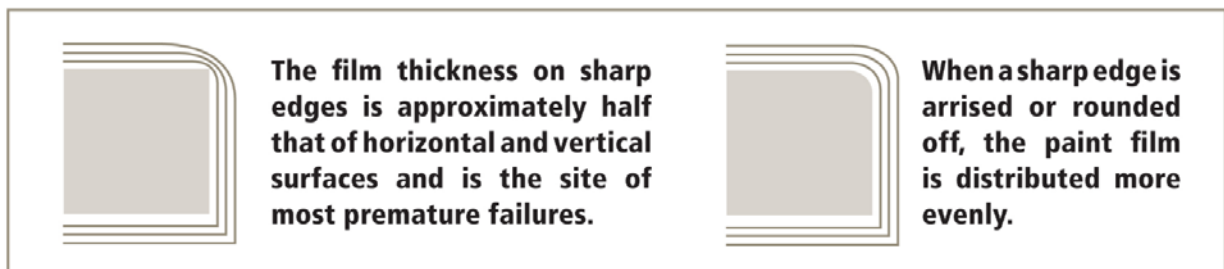
### Note 1: General

Timber and timber composites such as plywood and MDF are used extensively in New Zealand and Australian construction. Exterior timber will either be stained or painted, or left to weather (e.g. cedar, hardwood decking such as kwila or H2 or H3 treated pine).

Interior timber will typically be painted, stained and/or clear finished.

### Note 2: Arrissing sharp edges

Sharp edges on timber are very difficult to coat uniformly as paint tends to flow away from these edges leaving weak spots. For best results, these sharp edges should be sanded (or arrised) to a rounded profile. Refer Ref 1 below.



Ref 1

### Note 3: OEM Factory applied primers / pre-primers

Some factory applied primers, due to the demands of the application process, are not able to deliver everything needed in a wood primer. The quality varies greatly and in the main, they should be considered as a transport primer only and will require thorough sanding and priming.

If the timber has been exposed to UV light and weather for long periods (6 weeks or more), the surface will have chalked and is generally unsuitable for painting without the additional preparation work. Photos Ref 2 and Ref 3 below, shows a failure of paint system exacerbated by the factory applied primer.



Ref 2



Ref 3

There are well performing factory applied primers, including Resene True Prime. Unless chalked due to excessive UV exposure, they will not require re-priming. Check with the timber supplier or refer to documentation supplied with the timber.

**Note 4: LOSP Treatment**

Light Organic Solvent Penetration or LOSP is a preservative treatment for exterior timber. It relies on pressured solvent penetration to take the preservative deep into the timber. These solvents need to evaporate and have left the timber before any painting (including any coating priming, sealing and staining) commences. If any residual solvent odour is present, painting or staining should be delayed until it has dissipated.

Additionally, waxes from the process can remain on the surface or parts thereof and can result in slowing the drying of oil based primers and possible adhesive failure of waterborne primers. A test patch is recommended.

**Note 5: End Grain Protection**

The end grain of timber including any cut edges will absorb moisture at a significantly greater rate (volume) than the flat edge of the timber profile. Essentially, the capillary action of the timber is retained and moisture / water will continue to absorb into the timber and this will compromise the performance of the paint system. It is extremely important to always coat any end grain, including cut edges prior to erection.

**Note 6: Moisture Content of Timber**

The moisture content of timber will vary greatly depending on environmental conditions, preservative treatments used and its age. Painting or staining wet or timber that has a high moisture content can result in compromised adhesion and cause the timber to warp, cup and twist as it dries as well contract in size. Dark colours can exacerbate this phenomenon. The photo below (Ref 4) is an example of timber cupping as it has dried.



Ref 4

Timber should not be primed, painted or stained when its moisture content is higher than 17%. Tools (such as the Wagner moisture meter) are available to test moisture levels. Additionally, providing for good drying conditions, including protecting timber from the rain and filleting stacked timber, should be undertaken on site.

**Note 7: Fillers**

Filling of holes, dents and cracks in timber, including applying putty to windows, etc., should be undertaken after the timber has been primed, as oils and water can absorb into the surrounding timber or material, resulting in compromised drying and curing of the filling material.

Additionally, the filled areas will generally require re priming once any additional preparation work, such as sanding, is complete. Refer to the relevant manufacturer's instructions for the filling products selected.

**Note 8: Exposed Timber**

Bare timber left exposed to the elements undergoes a rapid degradation of the timber surface to produce loose fibres on the timber surface, which in the early stages of weathering, may not be obvious to the naked eye but can affect paint systems performance and durability.

Additional care, including the use of Resene TimberLock (a timber preservative and conditioner that improves the UV resistance of timber as well as its durability and fungal resistance), is recommended when painting over old weathered unpainted timber (as the backs and timber end grains of boards already in place are unlikely to have been sealed properly at the time of construction).

The installation of soakers over all joint areas will assist the performance of the new paint system. Total removal of all grey, weathered timber fibres (along with mould and dirt) to achieve a 'near new' timber look is essential.

Resene TimberLock (see [Data Sheet D48](#)) improves the dimensional stability of the substrate, as well as improving its fungal, water and U.V. light resistance. Its use improves the durability of subsequently applied topcoats. It is especially recommended on cedar that is to be painted, as well as on old weathered timber.

**Note 9: LRV Light Reflection Value, TSR Total Solar Reflectance**

Colour LRV (light reflection value) restrictions may apply to achieve the cladding supplier's performance guarantee; to meet the durability requirements of the NZ Building Code or colour restrictions that may be in place for a specific local authority. The use of Resene 'Cool Colour Technology' can increase the range of dark colours, which can be used on the substrate and may be acceptable to the local Territorial Authority as an 'Alternative Solution'.

TSR or total solar reflectance gives a measure of the heat reflected by the painted surface across the full spectrum of the Sun's energy and is therefore a more appropriate measure of heat associated with a colour than LVR, which does not account for infra-red heat (light). While cladding manufacturers and regulatory authorities have been slow to adopt TSR as a standard, alternative solutions, usually for heat reflective colours and coatings

(as above), are generally accepted. There is no direct mathematical relationship between LRV and TSR.

A Resene CoolColour system will not render the painted surface cool to touch, but the cool colour system will reflect more heat (infra-red radiation) than the same colour made on non-cool pigment technology. Dark colours may cause the rapid drying of damp timber with the ensuing danger of warping, though this effect will be lessened when a CoolColour is selected in place of a standard colour. The cool colour system will reduce but not eliminate heat related stress on the substrate.

While the majority of the heat reflectance of a CoolColour system is in the top coats (2 full coats), to achieve the maximum CoolColour benefit a dedicated cool colour primer (infra-red reflective) can be applied prior to application of the CoolColour top coats. However, for some colours, including Resene Cool Black and Nero, the presence of a cool colour primer base coat is essential to delivering the CoolColour system. To be effective the CoolColour primer/undercoat must achieve a solid base primer colour. This is easy to achieve with a new CoolColour system (depending on the substrate there are several CoolColour primers that can be selected), but with re paints additional coats of the cool base coat system will be required to achieve maximum heat reflectance.

If you require guidance on the reflective properties of the colour selected please contact Resene Technical Services.

**Note 10: Spreading Rates**

The spreading rates noted in the data sheets and as part of the preparation and application recommendations, are based on the natural spreading rate of the products. The use of differing application methods and tools can result in higher or lower applied rates. The degree of porosity, particularly of weathered and aged timber, can result in lower applied rates. Additionally, the rates are based on flat, smooth surfaces. Textured and profiled surfaces, including rough sawn timbers, will obviously require higher applied rates to achieve coverage.

It is the responsibility of the painting contractor to apply paint and coatings to achieve the required film build and ensure an even paint coverage of the surface. Thinning of paint will require additional paint to be applied, to achieve the same dry film thickness as un-thinned product.

**Note 11: Colour**

The selection of colour is generally outside of the specification process. Most Resene colour and paint systems have excellent hiding and coverage. Two coats applied over a suitably sealed or primed surface are generally sufficient.

However, some colours, notably yellow based hues, both pale and strong and some reds, may require a third coat or be applied over a white basecoat, to ensure coverage and or the correct colour.



Additionally, when repainting over a darker shade, a basecoat and / or an additional colour coat may be required to ensure coverage and / or the correct colour.

It is the responsibility of the painting contractor to be aware of the schedule of colours or colour scheme and prepare their quote accordingly. Where the colour scheme has not been released or is changed after the tenders are received, the painting contractor should note this in their tender response.

**Note 12: Curing / Drying of Paint Waterborne Finishes**

Waterborne paints can take a number of days, even weeks to fully cure. Whilst they can be touch dry after a relatively short time, a couple of hours or overnight; full cure will take longer. Climatic and drying conditions generally will influence the time required, as will the film build the paint system has been applied at. This stands to reason, as the thicker the paint film, the longer it will take to dry through (this includes where several, 2 to 3 coats of standard paint are applied in 8 to 12 hour period).

Damp humid conditions will slow the drying of paints and, if waterborne, can affect the quality of the 'cure', possibly resulting in surfactant leaching.

When applying waterborne paints in an interior situation, the rate of loss of water is the critical determining factor for the drying and curing of waterborne points. The amount of water that can be held by a given volume of air is known as the relative humidity and is expressed as a percentage and varies with air temperature. When there is a lot of water in the air (high relative humidity), the water in the applied waterborne paint cannot evaporate from the wet film to the atmosphere. This has serious consequences for the formation of the paint film.

Where paint is applied in new, unoccupied homes and buildings, significant quantities of moisture are released as part of the drying / curing process. To facilitate curing to achieve the correct film set up, the water released must be removed from the room space. The practice of closing a building up without allowing for adequate ventilation and drying conditions will affect the quality of the paint finish.

We strongly recommend consideration is given by the building owner / agent, in consultation with the painting contractor, to using portable extraction fans and heaters (although not gas or diesel heaters as they release additional moisture and will exacerbate the issue).

If solventborne enamels or 2 pack paints are applied in cold weather, the drying or curing process is usually delayed until the temperature rises. Until this happens, these coatings remain prone to physical damage by rain, dust or foot traffic, etc. and, where practical, should be protected. When the temperatures increase sufficiently, the paint will re-start the drying process and are usually unaffected, assuming that the film build of the paint is applied as per the recommendations.

Modern waterborne paints can undergo cross linking to achieve film properties similar to traditional solventborne paints. In the case of Resene waterborne enamel paints, it can take up to a month to achieve full cross linking and final film properties.

**Note 13:      Application over Primed Timber**

Primers and sealers are generally not designed for medium to long term exposure to UV light and the elements. The surface will begin to erode relatively quickly (by comparison to exterior topcoats) and will chalk. Topcoats should be applied as soon as practicable to avoid surface degradation. Typically, topcoats should be applied within 4 weeks after the completion of surface preparation and priming.

**Note 14: Repaint / Re-staining**

Ideally paint should break down by gradual erosion of the surface leaving a perfectly adhering, etched surface, which is ideal for repainting after washing down to remove surface chalking and any dirt and other contaminants. Unfortunately this is not always the case and additional time consuming surface preparation and priming may be required.

The worst case scenario is when the paint system has lost integrity, due to loss of adhesion resulting in flaking, peeling and blistering of the paint. Where any of these breakdowns have occurred, unless specific localised reasons for the failure can be identified, it is wise to assume that the weakness may be prevalent over the whole surface. The failure on the timber fence rail below (Ref 5) is a widespread and suggestive of significant adhesive failure of the original primer.



*Ref 5*

The assessment that has to be made is whether the existing system has sufficient adhesion to hold on when subjected to the extra stress and weight of two or three more coats of paint. Stresses are, of course, increased if the new system is darker in colour than the existing system.

Depending upon the prime system requirement at the time of specification, the effective lifetime of a coating system can be defined as the time to loss of film integrity, chalking, colour fade, or functionality such as weather tightness. While the factors are inter-related, it is the formulation composition that is the underlying determinant of system lifetime.

With new work film, integrity is not normally an issue. Repaints over many years results in an increasing film build and increased stress on the underlying paint layers. The stress will eventually be manifested as loss of adhesion that is loss of film integrity, and, in most cases, it is the original primer that fails.

Old enamel based paints, including red lead primers, become hard and brittle with ageing. Acrylic paints are more flexible than cross linking enamel paints and this means they can undergo extensions without film cracking. Standard acrylic paints are flexible but not elastic, which means that at a certain level of extension, the film will break. The extensibility is dependent upon resin features and gloss level. There are coatings

formulated using elastomeric acrylic resins that can undergo stretching and return to the non-extended state without film breakage, these tend to be in the 'high build' coatings area.

As the thickness of paint builds up on a substrate, there is a corresponding increase in tension on the underlying paint layers. Modern acrylic paints have excellent adhesion to clean, sound old prepared paints. When delamination occurs, it is usually at the substrate primer interface. There are two distinct types of failure, adhesive (between layers of paint) and cohesive (within a given layer of paint).

Upon inspection of these issues, the new coatings have always adhered well to the old coatings but the coatings underneath have lost all their adhesion and flexibility properties, in turn causing them to pull away. When investigating a failure, the best practice is to check what the failure type is and if inter-coat adhesion, which layers are involved. This can easily be seen by checking the back of a flake and comparing it to what remains where the flake delaminated from. If the failure is cohesive, there is usually evidence of the same paint colour being present on the back of the flake and where the flake peeled from.

Unfortunately in most cases, this issue cannot be easily foreseen and often does not become an issue until the new coatings are applied. This makes identification of who is responsible debatable.

Even when adhesion tests are done on the old coatings, they still may appear sound but because there are so many layers (sometimes up to 300 + microns), they are brittle and their adhesion becomes limited. A common cause of delamination occurs with a change from a pale to a much darker topcoat colour. The extra heat associated with the colour change is the tipping point and delamination is common. Note, the use of Cool Colours will help but not completely eliminate heat related issues.

The issue can be avoided by adhesion testing and identifying the age and build-up of existing coatings and fully removing them to a sound substrate suitable for painting. However, this does come at a much higher cost than simply painting over the old paint system and especially when the risks involved with removing lead based paint are added to the cost. It is up to the building owner or agent to make an educated decision of which path they would like to take.

It is better to be forewarned as to the possibility of paint delamination and take additional steps – such as stripping the area's most likely to be affected by heat related issues or selected a lighter colour than initially planned, than be faced with early failure of the existing coatings.

### ***Test for adhesion***

Clean an area of suspect coating and apply a strip of adhesive tape, ensuring firm contact by rubbing with a fingernail. Rapidly pull off the tape at 90° angle to the surface. Examine the tape for any detached paint. Where paint flakes come away, a complete strip of the

existing paint system is recommended. Adhesion testing should be repeated at multiple sites on a given elevation.

Typical retail adhesive tapes vary widely in their 'stickability'. Please contact Resene for advice on suitable tapes.

**Note 15: Exterior Joinery**

The performance of paint systems on exterior doors and windows is dependent on careful surface preparation and painting. Top and bottom surfaces **must** have the full coating system applied to them. This is best undertaken before they are hung or fitted.

Particular attention is needed to ensure that there are proper flashings above doors and windows and that the sides of joinery are properly weatherproofed by use of adequate scribes and / or sealants.

All edges of the joinery and future hidden surfaces **must** be primed before assembly with particular attention to priming the end grains correctly.

Attention is needed to ensure all sharp edges on joinery are sanded to a rounded profile before painting.

**Note 16: Custom/Special Colours**

Where the specification requires a custom/special colour to be applied, the applicator is required to produce a sample of the colour, to be approved by the owner/specifier prior to commencing painting.

For a custom/special stain colour the sample for approval must be the full stain system, applied as per the Resene datasheet, to the timber to be stained.

## SURFACE SPECIFICATION SHEETS

## SECTION 1 – Timber, Plywood and Weatherboards – Paint Finish

### Spec Sheet 2:1/1 - Timber, Plywood and Weatherboards –

#### Paint Finish: New Un-primed Timber, Plywood and Weatherboards (includes Cedar)

The preparation required for painting most new timber used in New Zealand and Australia, is usually straight forward. The key being to ensure the paint is applied to sound surface and that the timber and any treatments used, are both compatible with the paint system and ready to be primed. (For example if LOSP treated timber is used, there should be no residual solvent smell emanating from the timber and the moisture content should be at acceptable levels.)

The better the preparation, the better the resulting paint finish in terms of appearance and durability. For timber that has been erected in a timely manner and not exposed to UV light and weather, it will typically only require construction dirt and other contaminants cleaned off before sanding sharp edges. If the timber has been left for extended periods of time and /or has moss and mould on the surface treat as per weathered timber below.

- Step 1:** Arriss any sharp edges on timber profiles to a rounded edge. This particularly applies to scalloped weatherboards.
- Step 2:** Ensure all surfaces are clean and free from contamination before painting. Any bare timber that has been left to weather for more than 1 week, should be thoroughly sanded back to a sound timber surface.
- Step 3:** Apply a full coat of the specified timber primer as per the painting specification.
- Step 4:** All nail holes or areas of damaged timber having first been primed in Step 3, require filling with Resene Ezy Fill GP or similar in accordance with manufacturer's instructions. Sand smooth and spot prime the filled areas, with specified timber primer.
- Note 1:** Where new timber has been left exposed to UV light and the elements and has deteriorated treat as per weathered and greyed timber below and consider treating with Resene TimberLock. This is especially recommended if the timber is rough sawn.

## Spec Sheet 2:1/2 - Weathered Timber and Weatherboards (includes Cedar)

As timber weathers the top layer of timber greys on exposure to UV light and becomes poorly bound to the underlying timber layers. This unstable surface must be removed. Additionally, we strongly recommend the timber is conditioned using Resene TimberLock which performs a dual function of preserving and helping strengthen and condition the surface. This is particularly important with rough sawn timbers where a satisfactory degree of sanding is often impossible.

The surface will typically be dirty and contaminated with moss, mould and windblown salt, which must be removed before priming.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Timber and Deck Wash and water to remove all dirt, dust, grease, moss and mould residue, cobwebs and other contaminants. Use as directed on the label.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 3:** Remove or punch in any rusty nails and replace with stainless steel nails or equivalent. Thoroughly sand to remove any grey, weathered timber and to produce a smooth sound surface for painting. If timber is rough sawn then diligent brushing with a stiff nylon brush can be employed for this purpose. Ensure any sharp edges are arrissed to a rounded profile.

**Note II:** It is recommended that weathered and greyed timber, in particular rough sawn, is treated with a saturation coat of Resene TimberLock at approximately 5 square metres per litre. Allow 24 hours dry, then wipe off any still tacky material with a turps wet rag. Specifiers will need to include this additional step as a note in the specification or as a site instruction.

**Step 4:** Apply a full coat of the specified primer as per the painting specification.

**Step 5:** All nail holes or areas of damaged timber having first been primed in Step 3, require filling with Resene Ezy Fill GP or similar in accordance with manufacturer's instructions. Sand smooth and spot prime the filled areas, with specified timber primer.



## Spec Sheet 2:1/3 - Previously Painted Exterior Timber, Weatherboards and Plywood

Generally, painted exterior timber will be in reasonable condition with some moss and mould on the surface as well as salt, dirt and other contaminants and detritus. The degree of failure of the previously applied coatings will ultimately determine the amount of time and cost spent on preparing the surface (see also the notes above).

Where the paint surface has badly deteriorated, more extensive preparation, including possibly complete removal of the coating, may be required.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations an additional application (s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Paint Prep and House Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label. [Data Sheet D812](#)

**Step 3:** Thoroughly scrape and sand to remove all loose and flaking paint and to provide a good key for subsequent coats. Sand any weathered bare timber (this will be grey) back to a sound timber surface. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Ensure any sharp edges are arrissed to a rounded profile.

**Note II:** Remove or punch in any rusty nails and replace with galvanised or stainless steel nails as is appropriate. Any exposed nail heads unable to be replaced should be punched and spot primed with Resene ArmourX GP Metal Primer, if practicable, and fill with Linseed oil putty. Any rust stains should be spot primed using Resene Wood Primer.

**Step 4:** Spot prime all bare timber (including nail holes) with the specified timber primer.

**Step 5:** All nail holes or areas of damaged timber having first been primed in Step 4, require filling with Resene Ezy Fill GP or similar, in accordance with manufacturer's instructions. Sand smooth and spot prime the filled areas, with specified timber primer.

**Note III:** Treat rotten and cracked timber as per [Spec Sheet 2:1A/3](#).

**Note IV:** Where paint coatings need to be stripped refer to [Spec Sheet 2:1B/3](#).

**Note V:** Before beginning any surface preparation, tests should be done to ensure the old paint does not contain lead. Paint flakes with layers older than 1970 are likely to have lead in them. If lead based paints are identified on this job, then the OSH Guidelines <https://worksafe.govt.nz/topic-and-industry/hazardous-substances/guidance/substances/managing-lead-based-paint/> for the Management of Lead-based Paint must be read and followed. Where these guidelines are in conflict with any part of this specification, the guidelines must take precedence. Flakes of lead paints and any sanding dust need to be carefully managed and disposed of.

**Note VI:** Older timber weatherboard clad homes, especially those located close to a coastal location are likely to have rusting nails which are susceptible to bending and breakage when weather boards undergo dimensional change such as can occur when there is a colour change to dark colours. We recommend replacement of nails with new galvanised or stainless nails to ensure dimensional changes are minimised.

## Spec Sheet 2:1A/3 - Rotten and Cracked Weatherboards

Rotten and cracked timber needs to be cut out or the rot will spread. Typically, rotted areas may be suspected but the extent and location not known until preparation work begins. It is therefore almost impossible to include when pricing a project and is typically tagged out by those tendering. A PC sum or agreed rate is usually included to cover this eventuality. If this is not the case and the tender or spec covers old timbers, a site instruction or note to tenderers should be included. The photo (Ref 6) below is an example of degraded and rotted timber.



Ref 6

- Step 1:** Scrape out all cracks and splits in timber to obtain a sound surface for filling. Nail or screw where needed to secure the timber.
- Step 2:** Cut out and remove rotten timber. Ideally cut away 20mm of sound timber around the affected area to ensure the rot is completely removed.
- Step 3:** Treat all end grains and any other bare timber in the vicinity, as well as any replacement timber, with Resene TimberLock.
- Step 4:** Large areas should be replaced with a similar timber profile and / or filled using the repair care system as per RepairCare technical data sheets, using Dry Fix Primer and Dry Flex Filler. Cracks, nail holes and splits should also be repaired in accordance with RepairCare directions.
- Step 5:** Thoroughly sand all filled areas to achieve a smooth surface. Ensure all areas of flaking paint are thoroughly sanded to a feathered edge. Wash clean and immediately prime all bare timber and filled areas with the specified timber primer.
- Step 6:** Apply the specified primer to bare and repaired areas as per the painting specification.

## Spec Sheet 2:1B/3 - Stripping Paintwork to Bare Timber

As referenced above ([Surface Information Note 14: Repaint/Re-staining](#)), paint will need to be stripped off timber when its condition deteriorates and it delaminates, blisters and / or flakes off. There are a number of methods that can be employed to remove failing paint coatings. These include chemical, mechanical and heat stripping.

Paint stripping using an open flame source is least common, as it is very dangerous due to the possibility of combustible material behind timber catching fire. Heat guns are somewhat safer but may require the notification of the local fire brigade if used for this purpose.

Chemical stripping is generally preferred but can be messy and unpleasant. Additionally, some chemical strippers are highly toxic and dangerous; many are based on methylene chloride; a known carcinogen. Resene recommends the Sea 2 Sky system as it is waterborne; environmentally preferable and proven.

Mechanical stripping is increasingly being used.

**Step 1:** Thoroughly scrape to remove as much old paint as is practicable. To areas of remaining paint, apply Sea 2 Sky Stripper in accordance with manufacturer's instructions, taking care not to damage the substrate. Remove as much of the softened old paint as possible, using a suitable scraper. Repeat the process if any paint remains.

**Note 1:** Alternatively, all old paint may be carefully removed by use of hot air guns (gun temperature must not exceed 400 degrees C), mechanical sanders or other appropriate means that will not damage the timber or allow the uncontrolled release of lead containing paint or debris into the environment.

**Step 2:** Remove or punch in any rusty nails and replace with stainless steel nails or equivalent. Thoroughly sand to remove any remaining paintwork and weathered timber to produce a smooth sound surface ready for priming and painting. Ensure any sharp edges are abraded to a rounded profile.

**Note 1:** It is recommended that the timber is treated with a saturation coat of Resene TimberLock at approximately 5 square metres per litre. Allow 24 hours to dry, then wipe off any still tacky material with a turps wet rag. Specifiers will need to include this additional step as a note in the specification or as a site instruction.

**Step 3:** Apply a full coat of the specified primer as per the painting specification.

**Step 4:** All nail holes or areas of damaged timber having first been primed in Step 3, require filling with Resene Ezy Fill GP or similar in accordance with manufacturer's instructions. Sand smooth and spot prime the filled areas, with specified timber primer.

**Note II:** Before beginning any surface preparation, tests should be done to ensure the old paint does not contain lead. Paint flakes with layers older than 1970 are likely to have lead in them. If lead based paints are identified on this job, then the OSH Guidelines <https://worksafe.govt.nz/topic-and-industry/hazardous-substances/guidance/substances/managing-lead-based-paint/> for the Management of lead Based Paint must be read and followed. Where these guidelines are in conflict with any part of this specification, the guidelines must take precedence. Flakes of lead paints and any sanding dust need to be carefully managed collected and disposed of.

## SECTION 2 – Pre-Primed Timber, Plywood and Weatherboards

### Spec Sheet 2:2/1 - Pre-primed Timber, Plywood and Weatherboards (factory applied primers)

The quality of pre primers used for the factory priming of timber weatherboards can vary greatly. If a low-quality priming system has been applied, there is an increased chance of system failure (primer/topcoat adhesion) even when the primer is overcoated with a quality waterborne topcoat paint system. Potential system failure is exacerbated if the pre primed weatherboards are exposed to UV and weathering for extended periods (6 weeks or more) prior to coating. Exposure to weathering for an extended period will result in the chalking of oil-based primers and the requirement for the primed surface to be thoroughly sanded and reprimed.

There are well performing factory applied primers including Resene True Prime. Unless chalked due to excessive UV exposure, they will not require re-priming. Check with the timber supplier or refer to documentation supplied with the timber, as to the type of primer used.

Resene Wood Primer is preferred over waterborne Resene Quick Dry Primer, as it is solventborne and will penetrate further into and bind onto the factory applied primer.

**Step 1:** Thoroughly scrub down with Resene Paint Prep and House Wash to remove all dirt, grease, stains, dust and other contaminants. Rinse thoroughly with clean water.

[Data Sheet D812](#)

**Step 2:** Thoroughly sand (using P180 grit paper) to produce a smooth, sound surface and to reduce any sharp arises to a rounded profile. Wipe surface with a damp rag to remove dust.

**Step 3:** Apply a full coat of Resene Wood Primer as per the paint specification. [Data Sheet D40](#)

**Step 4:** Fill all nail holes, damaged or split timber with Resene Ezy-fill GP or similar product applied, in accordance with manufacturer's instructions. Spot prime filler (after 24-hour dry) with Resene Wood Primer.

**Note I:** To prevent the primed surface being exposed to damaging UV light and weather, apply topcoats within a maximum time period of 4 weeks after completion of surface preparation.

**Note II:** Step 3 does not require an additional coat of primer and should be read in conjunction with the painting specification for the project.

## SECTION 3 – Linea and Fibre cement (boards)

### Spec Sheet 2:3/1 – New Linea Weatherboards and Fibre Cement Timber Substitutes

While clearly not timber, fibre cement and particularly Linea weatherboards are a commonly specified timber substitute and Linea weatherboards, in particular, are widely used. They have been included in the timber section as many specifiers would search for weatherboards rather than cement board. This section is repeated in the Cementitious Surface information and Preparation Data Sheet.

Painting new fibre cement is usually straight forward. The main requirement is to correctly screw holes and cut edge details that will need to be carefully primed and filled.

**Step 1:** Thoroughly scrub down with Resene Paint Prep and House Wash to remove all dirt, detritus and other contaminants. Rinse thoroughly with clean water. [Data Sheet D812](#)

**Step 2:** Apply a full coat of Resene Concrete Primer as per the paint specification. [Data Sheet D405](#)

**Step 3:** Fill all nail holes with an exterior grade 2 part builders filler per the guidelines of the substrate supplier, applied in accordance with the manufacturer's instructions. Spot prime filled areas once cured and sanded with Resene Concrete Primer [Data Sheet D405](#)

**Note I:** Step 2 does not require an additional coat of primer and should be read in conjunction with the painting specification for the project.

**Note II:** Where strong, deep colours, including blacks, or variants thereof, are used on products like Linea Weatherboard, Linea Oblique Weatherboard or Stria Cladding etc., it is recommended that a lower gloss paint finish is selected e.g. Resene Lumbersider. The more subdued gloss level of Resene Lumbersider minimises the visual impact of any surface imperfections/variations better than the semi-gloss of Resene Sonyx 101 and the high gloss of Resene Hi-Glos. It is strongly recommended that when using dark or deep colours that, if available, the Resene Cool Colour version of the colour is used.

## Spec Sheet 2:3/3 - Repainting Linea Weatherboards and Fibre Cement Timber Substitutes

In general repainting, Linea and other fibre cement weatherboards and timber substitutes are straightforward. The substrate is inert, so has little, if any, movement and shrinkage and is a good substrate to apply and reapply paint to. In most respects, it is similar to repainting a traditional timber weatherboard.

Again, as for new Linea, this section is repeated in the Cementitious Surface Information and Preparation Data Sheet (**SIPDS No.3**).

Where the paint surface has badly deteriorated, more extensive preparation, including possibly complete removal of the coating, may be required. (Refer also to Surface Information Note 11 on repainting).

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down, using a solution of Resene Paint Prep and House Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label. [Data Sheet D812](#)

**Step 3:** Thoroughly scrape and sand to remove all loose and flaking paint and to provide a good key for subsequent coats. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Ensure any sharp edges are arressed to a rounded profile.

**Step 4:** Remove or punch in any rusty nails and replace with galvanised or stainless steel nails, as is appropriate. Any exposed nail heads unable to be replaced should be punched and spot primed with Resene ArmourX GP Metal Primer, if practicable, and filled with Resene Ezy Fill GP Filler. Any surface rust stains should be spot primed using Resene ArmourX GP Metal Primer.

[Data Sheet D402](#)

**Step 5:** Spot prime all sanded or flaked areas (including nail holes) with Resene Concrete Primer.

[Data Sheet D405](#)

**Step 6:** Fill all nail holes, damaged areas or splits with Resene Ezy-Fill GP Filler or similar, in accordance with manufacturer's instructions. Spot prime filled areas with the specified primer as used previously.

**Note II:** Linea weatherboards are asbestos-free, however some of the older – pre 1983 fibre cement boards (and panels) contained asbestos and this needs to be treated with extreme caution. If you suspect Asbestos is present, please contact Resene Technical Services.

**Note III:** Where strong, deep colours, including blacks, or variants thereof, are used on products like Linea Weatherboard, Linea Oblique Weatherboard or Stria Cladding etc., it is recommended that a lower gloss paint finish is selected e.g. Resene Lumbersider. The



more subdued gloss level of Resene Lumbersider minimises the visual impact of any surface imperfections/variations better than the semi-gloss of Resene Sonyx 101 and the high gloss of Resene Hi-Glos. It is strongly recommended that when using dark or deep colours that, if available, the Resene Cool Colour version of the colour is used.

## SECTION 4 – Timber, Plywood and Weatherboards – Stained Finish

### Spec Sheet 2:4/1 - New Exterior Timber, Plywood and Weatherboards; Stained Finish

Staining is usually straightforward and an option worth considering when compared to painting, particularly if access to high elevations is not an issue. This is because a stained finish is not as durable as a paint finish and has a shorter maintenance interval; however it is significantly easier to undertake and to re-apply as part of a future maintenance program.

There a number of different types of wood stain available in the New Zealand and Australian markets, and almost as many views as to the best performing. Our approach has been to focus on penetrating stains – waterborne and solventborne, that are straight forward to apply and maintain. Surface forming stains, which are similar to varnishes, can last longer **BUT** their failure mode is flaking and delamination away from the timber.

We consider the failure mode to be unacceptable as recoating is much more time consuming and difficult, and the finished result often disappoints. There will be a requirement relatively early in the products life cycle to completely strip and reapply the system. We only recommend these types of finishes for easy to repair and reapply outdoor furniture and feature (front) doors and joinery. Where an exterior clear finish (such as Resene Furniture and Timber Gel) is specified, the preparation is as per a stained finish for new timber.

Staining new timber is relatively straight forward. It is recommended that the initial coat is applied before erection and that the timber board or panel is envelope sealed – with all sides including the back of board stained. This will help prevent warping and twisting. Pay particular attention to end grain and any cut edges as they absorb more moisture than the flat edge.

Once nailed and in place the rest of the system can be applied.

**Step 1:** Ensure all surfaces are clean and free from contamination. Hardwoods in particular will benefit from washing / scrubbing with Resene Timber and Deck Wash to ‘open’ up the timber surface thus allowing the stain to penetrate further into the timber. Use as directed on the label.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 2:** Arriss any sharp edges to a rounded profile. Any bare timber that has been left to weather longer than one month should be thoroughly sanded back to a sound timber surface.

**Note 1:** New LOSP Preservative treated timber must not be painted if solvents from the LOSP treatment are still in the timber. If solvents can be smelt coming out of the timber, it should be fillet stacked in such a manner that all the solvents can and will leave the timber. Many problems may be encountered with the new paint system, if timber is painted while these solvents are still in the timber.

**Note II:** Stains on Shadowclad will meet the 15 year durability requirement of the NZBC. They may not meet the 50 year durability requirements and are not suitable over plywood used for structural bracing. To minimise potential problems, such as face checking, stains with a light reflectance value of 40%-100% are recommended.

The use of Resene 'Cool Colour Technology' can produce most dark colours (LRV <40%) yet with heat reflectance properties akin to standard colours of 40% LRV.

**Note III:** To reiterate, for best results Resene Paints recommend that the backs of boards be sealed with a full coat of Resene Woodsman and end grains **must** be sealed with two coats of Resene Woodsman. The performance of the stain will be improved if sharp edges on the timber profile are rounded off. Woodsman is designed to slowly erode away in exposed places and need regular maintenance (18 monthly). Waterborne Woodsman is not recommended for joinery or decking.

## Spec Sheet 2:4/2 - Staining Weathered Exterior Timber (including Plywood)

Old weathered timber and plywood will be moss, mould and possibly lichen infested and the surface will be degraded with dirt and other contaminants, including windblown salts. The timber will require treatment to kill the mould and mould spores before thorough cleaning. If badly degraded and greyed, thorough sanding to achieve a sound base is recommended.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

[Data Sheet D80](#)

**Note I:** For heavy infestations, an additional application(s) may be needed.

**Step 2:** Thoroughly scrub down using a solution of Resene Timber and Deck Wash and water to remove all dirt, dust, grease, moss and mould residue, cobwebs and other contaminants. Use as directed on the label.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 3:** Thoroughly sand to remove any grey, weathered timber and to produce a smooth sound surface for painting. If timber is rough-sawn then scrubbing with a stiff nylon brush can be carefully employed for this purpose. Ensure any sharp arrisses are sanded to a rounded profile.

**Note II:** Remove any rusty nails and replace with galvanised or stainless steel nails as is appropriate.

**Note III:** Weathered timber, particularly cedar, is more porous and 'open' and will typically use more stain per square metre than new timber.

## Spec Sheet 2:4/3 - Previously Stained Exterior Timber (including Plywood)

Previously stained timber and plywood generally presents few issues when re-staining, particularly when re-staining with the same system. If the previously used stain is a non-film forming type and **not** a mineral oil stain (see Note 4), then preparation is straightforward with the main issue being that there is likely to be moss and mould present.

If the stain is a surface forming stain (or varnish style), then the penetrating style of stains Resene recommend will not soak into the timber nor adhere well to the surface.

The old stain will require removal, although our experience is that it will be badly degraded, flaking and that removal, whilst time consuming, will generally be welcomed.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Timber and Deck Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface. [Data Sheet D812](#)

**Step 3:** Thoroughly scrape and sand to remove all loose and flaking stain and to provide a good key for subsequent coats. Sand any weathered bare timber (this will be grey) back to a sound timber surface. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Ensure any sharp edges are arrissed to a rounded profile.

**Note II:** Remove and replace rusty nails with galvanised or stainless-steel nails as appropriate.

**Note III:** In order to obtain a uniform colour with new applications of Woodsman, the old, stained surface needs to be uniform. Test patches are recommended to ascertain this before proceeding.

**Note IV:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or have high moisture content. The use of Resene Cool Colour technology (available in Resene Woodsman Decking stain) will help prevent but will not eliminate heat related issues.

**Note V:** Old mineral oil stains are difficult to distinguish from traditional solventborne wood stains. They retain a degree of oil in the timber surface, and this can negatively impact on the adhesion of non-mineral oil stains; including those from the Resene Woodsman range and result in premature failure. Preferably ascertain the nature of the stain used before applying the new stain. If you are unsure, please contact Resene Technical Services.

## SECTION 5 – Decking – Stained Finish

### Spec Sheet 2:5/1 - New Decking; Stained Finish

New decking, both hardwoods like Kwila (merbau in Australia) and softwoods, including pine, are relatively straightforward to stain once they have been prepared. The main issue being that when the boards are machined, as part of the manufacturing process the surface becomes hardened and does not accept a stain as readily as weathered decking boards.

To overcome this, we recommend the boards are either scrubbed using Resene Timber and Deck Wash (and if water sits on the surface and doesn't absorb), sanded or left to weather, and then scrubbed to open up the grain. With hardwoods, in particular Kwila, it is recommended that they are weathered for 4-6 weeks before staining, although end grain and if possible the underside should be stained before laying.

**Step 1:** Thoroughly scrub down with Resene Timber and Deck Wash as per the labels directions to open up the timber surface and remove dirt and detritus and other contaminants. Rinse clean with fresh water.  
RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 2:** Sand any sharp edges to a rounded profile as well as any timber markings. If the timber has been left exposed and has weathered to a consistent grey surface, treat as per weathered decking - [Spec Sheet 2:5/2](#).

**Note I:** For best results, Resene Paints recommends that the backs of boards are sealed with a full coat of the selected stain. End grains should be sealed with two coats of stain.

**Note II:** Resene stains and Resene Timber and Deck Oil are designed to slowly erode away in exposed places and will need regular maintenance, including reapplication.

**Note III:** Kwila timber is notorious for the large volumes of water soluble extractives that it contains. Unless the timber is treated by running under a sprinkler for a few days, or left to weather (to remove the bulk of the stain), then stain run off from the deck is likely, which can be an issue if the deck is on a higher level or adjacent to concrete or tiles.

**Note IV:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or has high moisture content. The use of Resene Cool Colour technology (available in Resene Woodsman Decking stain) will help prevent but will not eliminate heat related issues.

## Spec Sheet 2:5/2 - Staining Weathered Decking; Hardwood and Pine

Weathered and greyed decking, both hardwoods like Kwila (Merbau in Australia) and softwoods, including Pine, are relatively straightforward to stain once they have been prepared. The main issue being that they will likely have moss and mould present, and occasionally lichen that will require killing and removal. The top surface will also be unstable due to UV degradation.

Further, if the boards are laid without proper treatment of the backs of the boards (and especially end grain), then this will ultimately compromise the durability of the board and potentially contribute to twisting and or warping of the boards if a dark colour is selected.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down with Resene Timber and Deck Wash as per the labels directions to remove dirt and detritus and other contaminants. Rinse clean with fresh water. RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 3:** Sand any sharp edges to a rounded profile. If very greyed, sand using 80 to 100 grit sandpaper to remove the top layer. It is appreciated that this is not practicable for many decks, in particular where the groove faces upward.

**Note II:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or has high moisture content. The use of Resene Cool Colour technology (available in Resene Woodsman Decking stain) will help prevent but will not eliminate heat related issues.

**Note III:** Resene stains are designed to slowly erode away in exposed places and will need regular maintenance including reapplication.

## Spec Sheet 2:5/3 - Previously Stained Decking; Hardwood and Pine

Previously stained decking generally presents few issues when re-staining, particularly when re-staining with the same system. If the previously used stain is a non-film forming type and **not** a mineral oil stain (see Note 4), then preparation is straightforward with the main issue being that there is likely to have moss and mould present.

If the stain is a surface forming stain (or varnish style), then the penetrating style of stains Resene recommend will not soak into the timber nor adhere well to the surface. The old stain will require removal, although our experience is that it will be badly degraded, flaking and that removal, whilst time consuming, will generally be welcomed.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Timber and Deck Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface. [Data Sheet D812](#)

**Step 3:** Sand any sharp edges to a rounded profile. Any flaked, chalked or degraded areas should be sanded using 80 to 100 grit sandpaper to achieve a sound surface. It is understood that this is not practicable for many decks, in particular those where the groove faces upward.

**Note II:** In order to obtain a uniform colour with new applications of Woodsman, the old stain needs to be uniform. Test patches are recommended to ascertain this before proceeding.

**Note III:** Resene stains and Resene Timber and Deck Oil are designed to slowly erode away in exposed places and may need regular maintenance, including reapplication.

**Note IV:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or has high moisture content. The use of Resene Cool Colour technology (available in Resene Woodsman Decking stain) will help prevent but will not eliminate heat related issues.

**Note V:** Old mineral oil stains are difficult to distinguish from traditional solventborne wood stains. They retain a degree of oil in the timber surface and this can negatively impact on the adhesion of non-mineral oil stains, including those from the Resene Woodsman range and result in premature failure. Preferably, ascertain the nature of the stain used before applying the new stain. If you are unsure, please contact Resene Technical Services.



## SECTION 6 – Decking – Paint Finish

### Spec Sheet 2:6/1 - Painting New Pine Decking

Most new decking, where painting rather than staining is selected, is constructed using Pine rather than hardwoods like Kwila. It is recommended that the decking boards are envelope sealed prior to construction with the specified primer and that cut edges are double primed.

If timber is erected in a timely manner and not exposed to UV light and the weather, it will typically only require construction dirt and detritus and other contaminants cleaned off before sanding any sharp edges. If the timber has been left for extended periods of time and / or has moss and mould on the surface, treat as per painting weathered decking.

**Step 1:** Thoroughly scrub down with Resene Timber and Deck Wash as per the labels directions to open up the timber surface and remove dirt and detritus and other contaminants. Rinse clean with fresh water.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 2:** Sand any sharp edges to a rounded profile as well as any timber markings. If the timber has been left exposed and has weathered to a consistent grey surface, treat as per weathered decking - [Spec Sheet 2:6/2](#).

**Step 3:** It is recommended that nails or screws used to fix the boards are left flush with surface. Filled nail and screw holes using traditional cellulose fillers do not perform well in ponded water situations. If filling is required, contact Resene Technical Services for advice.

**Step 4:** Apply the specified timber primer as per the painting specification.

**Note I:** If the timber has been left exposed to UV light and the elements and has deteriorated, treat as per weathered and greyed timber below and consider treating with Resene TimberLock. This is especially recommended if the timber tread (grooved) faces upwards.

**Note II:** For best results Resene Paints recommend that the backs of boards be sealed with a full coat of the selected primer and that end grains are sealed with two coats.

**Note III:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or has high moisture content. The use of Resene Cool Colour technology will help prevent but will not eliminate heat related issues.

## Spec Sheet 2:6/2 - Painting Weathered (unpainted); Pine Decking

Most decks where painting rather than staining is selected, are constructed using Pine rather than hardwoods like Kwila. Painting weathered Pine decking is relatively straightforward once it has been prepared.

The main issues being that they will likely have moss and mould present, and occasionally lichen that will require killing and removal and the timber surface will be greyed and degraded.

Further, if the boards are laid without proper treatment of the backs of the boards (and especially end grain), then this will ultimately compromise the durability of the board and potentially contribute to twisting and or warping of the boards if a dark colour is selected.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down with Resene Timber and Deck Wash as per the labels directions to open up the timber surface and remove dirt and detritus and other contaminants. Rinse clean with fresh water.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 3:** Sand any sharp edges to a rounded profile. If very greyed, sand using 80 to 100 grit sandpaper to remove the top layer. It is appreciated that this is not practicable for many decks, in particular where the grove faces upward.

**Note II:** Where the deck tread (groove) is laid facing upwards, preparation is likely to be compromised as effective sanding of the groves is unlikely to be achieved. Resene strongly recommend a saturation coat of TimberLock Preserver / Conditioner be applied at an approximate spreading rate of 5-10 square meters per litre. Allow 24 hours to dry. Wipe off any tacky material with a turps wet rag. TimberLock will help reconstitute weathered timber fibres and also provide good fungal resistance.

Specifiers will need to include this additional step as a note in the specification or as a site instruction. [Data Sheet D48](#)

**Note III:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or has high moisture content. The use of Resene Cool Colour technology will help prevent but will not eliminate heat related issues.

## Spec Sheet 2:6/3 - Re-painting Pine Decking

Generally, painted timber decking will be in reasonable condition with some moss and mould on the surface as well as salt, dirt and other contaminants and detritus. The degree of failure and wear of the previously applied coatings will ultimately determine the amount of time and cost spent on preparing the surface (refer also to Surface Information Note 11 on repainting).

Where the paint surface has badly deteriorated, more extensive preparation including possibly complete removal of the coating may be required.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Paint Prep and House Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label. [Data Sheet D812](#)

**Step 3:** Thoroughly scrape and sand to remove all loose and flaking paint and to provide a good key for subsequent coats. Sand any weathered bare timber (this will be grey) back to a sound timber surface. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Ensure any sharp edges are arrissed to a rounded profile; replace or hammer down any lose or raised nail heads.

**Step 4:** Spot prime all bare timber with the specified timber primer.

**Note II:** In order to obtain good adhesion to old polyurethane type paving paints, thorough sanding to a dull mat finish is required. A full adhesion coat of Resene Waterborne Smooth Surface Sealer is recommended. [Data Sheet D47A](#)

**Note III:** Darker colours will attract more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or has high moisture content. The use of Resene Cool Colour technology will help prevent but will not eliminate heat related issues.

## SECTION 7 – Exterior Joinery

### Spec Sheet 2:7/1 - New Un-primed Timber Joinery (includes Cedar)

If timber is erected in a timely manner and not exposed to UV light and the weather, it will typically only require construction dirt and other contaminants cleaned off before arrissing sharp edges. If the timber has been left for extended periods of time and / or has moss and mould on the surface, treat as per weathered timber joinery below.

**Step 1:** Ensure any sharp edges are arrissed to a rounded profile.

**Step 2:** Ensure all surfaces are clean and free from contamination before painting. Any bare timber that has been left to weather for more than 1 week, should be thoroughly sanded back to a sound timber surface.

**Step 3:** Apply the specified timber primer as per the painting specification.

**Step 4:** All nail holes or areas of damaged timber should first be primed with the specified timber primer before filling with Resene Ezy Fill GP or similar in accordance with manufacturer's instructions. Sand smooth and spot prime the filled areas, with specified timber primer.

**Note I:** Apply topcoats within a maximum of 4 weeks after completion of surface preparation.

**Note II:** If the timber has been left exposed to UV light and the elements and has deteriorated, treat as per weathered and greyed timber below and consider treating with Resene TimberLock. This is especially recommended if cedar joinery has been selected.

**Note III:** Any fresh putty should be allowed to harden up before priming with Resene Wood Primer. How long depends on the type of glazing compound used. [Data Sheet D40](#)

## Spec Sheet 2:7/2 - Weathered Cedar Joinery (unpainted)

Cedar is the only timber used in joinery that can realistically be left unpainted and is usually done as an element in a window (the frame and / or the sash) or the door. As it weathers, the top layer of the cedar greys on exposure to UV light and becomes poorly bound to the underlying timber layers. This unstable surface must be removed before painting or staining. Additionally, we strongly recommend the timber is conditioned using Resene TimberLock, which performs a dual function of preserving and helping strengthen and condition the surface. This is particularly important for Cedar.

The surface will typically be dirty and contaminated with moss, mould and windblown salt, which must be removed before priming.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down with Resene Timber and Deck Wash in accordance with the label instructions to remove all dirt, dust, grease, any moss and mould residue, chalk, cobwebs and other contaminants. Rinse thoroughly.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface.

[Data Sheet D813](#)

**Step 3:** Thoroughly sand to remove any grey, weathered timber and to produce a smooth sound surface for painting. Ensure any sharp edges are arressed to a rounded profile.

**Note II:** It is recommended that weathered and greyed timber in particular rough sawn is treated with a saturation coat of Resene TimberLock at approximately 5 square metres per litre. Allow 24 hours to dry, then wipe off any still tacky material with a turps wet rag. Specifiers will need to include this additional step as a note in the specification or as a site instruction.

**Step 4:** Apply a full coat of the Resene Wood Primer as per the painting specification.

[Data Sheet D40](#)

**Step 5:** All holes or areas of damaged timber should first be primed with Resene Wood Primer before filling with Resene Ezy Fill GP or similar in accordance with the products instructions. Sand smooth and spot prime the filled areas.

## Spec Sheet 2:7/3 - Repainting Exterior Timber Joinery

Generally, painted exterior timber joinery will be in reasonable condition with some moss and mould on the surface as well as salt, dirt and other contaminants. The degree of failure of the previously applied coatings will ultimately determine the amount of time and cost spent on preparing the surface (refer also to Substrate Note No 11- Repainting).

The closed facings, underside and topside of the window reveals will require thorough sanding to provide a key for new paintwork. This applies where both solventborne and waterborne enamels have been used.

Where the paint surface has badly deteriorated, more extensive preparation, including possibly complete removal of the coating, may be required.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Paint Prep and House Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label. [Data Sheet D812](#)

**Step 3:** Thoroughly scrape and sand to remove all loose and flaking paint and to provide a good key for subsequent coats. Sand any weathered bare timber (this will be grey) back to a sound timber surface. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Ensure any sharp edges are arrised to a rounded profile.

**Note II:** Remove or punch in any rusty nails and replace with galvanised or stainless steel nails as is appropriate. Any exposed nail heads unable to be replaced should be pinched and spot primed with Resene ArmourX GP Metal Primer, if practicable, and filled with Linseed oil putty or Resene Ezy Fill GP Filler. Any rust stains should be spot primed using Resene Wood Primer.

**Step 4:** Spot prime all bare timber (including nail holes) with the specified timber primer.

**Step 5:** Fill all nail holes, damaged or split timber with Resene Ezy-Fill GP Filler or similar in accordance with manufacturer's instructions. Spot prime filled areas with the specified timber primer as used previously.

**Note III:** Treat rotten and cracked timber as per [Spec Sheet 2:1A/3](#).

**Note IV:** Where paint coatings need to be stripped refer to [Spec Sheet 2:1B/3](#).

**Note V:** Before beginning any surface preparation, tests should be done to ensure the old paint does not contain lead. Paint flakes with layers older than 1970 are likely to have lead in them. If lead based paints are identified on this job, then the OSH Guidelines <https://worksafe.govt.nz/topic-and-industry/hazardous->

[substances/guidance/substances/managing-lead-based-paint/](#)

for the Management of Lead-based Paint must be read and followed. Where these guidelines are in conflict with any part of this specification, the guidelines must take precedence. Flakes of lead paints and any sanding dust need to be carefully managed and disposed of.

## SECTION 8 – Pre-primed Exterior Joinery

### Spec Sheet 2:8/1 - Pre-primed Exterior Timber Joinery (factory applied primers)

The quality of pre-primed paint systems used on timber doors and joinery varies greatly and in the main, they should be considered as a transport primer only. They will require thorough sanding and priming. If the timber has been exposed to UV light and weather for long periods (6 weeks or more), the surface will have chalked and is generally unsuitable for painting without the additional preparation work.

There are well performing factory applied primers including Resene True Prime. Unless chalked due to excessive UV exposure, they will not require re-priming. Check with the timber supplier or refer to documentation supplied with the timber.

Resene Wood Primer is preferred over waterborne Resene Quick Dry Primer, as it is solventborne and will penetrate further into and bind onto the factory applied primer.

**Step 1:** Thoroughly scrub down with Resene Paint Prep and House Wash to remove all dirt, grease, stains, dust and other contaminants. Resene recommend the use of synthetic scouring pads for this purpose and to more easily reach window recesses and closure points. Rinse thoroughly with clean water. [Data Sheet D812](#)

**Step 2:** Thoroughly sand (using P180 grit paper) to produce a smooth, sound surface and to reduce any sharp arises to a rounded profile. Wipe surface with a damp rag to remove dust.

**Step 3:** Apply a full coat of Resene Wood Primer as per the paint specification. [Data Sheet D40](#)

**Step 4:** Fill all nail holes, damaged or split timber with Resene Easy Fill GP or similar product applied in accordance with product instructions. Spot prime filled areas with Resene Wood Primer.

**Note I:** Step 3 does not require an additional coat of primer and should be read in conjunction with the painting specification for the project.

**Note II:** Any fresh putty should be allowed to harden up before priming with Resene Wood Primer. How long depends on the type of putty used.



## SECTION 9 – Interior Joinery

### Spec Sheet 2:9/1 - New Interior Timber and Joinery (including MDF)

Painting new interior joinery is usually straightforward in terms of the preparation required and paint systems that are recommended. However, the painter (applicator) is usually required to take greater care when preparing the surface, as well as applying the paint system. Generally an acceptable finish for interior wood work and joinery is higher than that expected for exterior joinery (with the notable exception of prominent high profile front doors and joinery).

**Step 1:** Thoroughly sand to a smooth, clean surface. Arriss any sharp edges to a rounded profile. Wipe surface with a damp rag or tack cloth to remove dust and detritus.

**Step 2:** Apply a full coat of Resene Quick Dry Acrylic Primer Undercoat or Resene Enamel Undercoat (if cedar or water stained) as per the paint specification.

[Data Sheet D45/D44](#)

**Step 3:** Fill all holes and cracks with Resene Ezy Fill GP Filler or equivalent product applied in accordance with manufacturer's directions. When dry, sand smooth and spot prime with Resene Quick Dry Acrylic Primer Undercoat.

**Note I:** Step 2 does not require an additional coat of primer and should be read in conjunction with the painting specification for the project.

**Note II:** A second coat of Resene Quick Dry Acrylic Primer Undercoat or Resene Enamel Undercoat should be considered and specified if a high level of finish and or high gloss finish is wanted. A site instruction or note to the painting specification will be required if selected.

**Note III:** All surfaces of the doors especially the bottom edge should be painted with the full paint system. This is best done while off their hinges.

**Note IV:** If any staining is visible after the primer coat then a stain blocking coat of Resene Enamel Undercoat will be needed.

**Note V:** On MDF, Customwood and particle board type surfaces, waterborne coatings may raise the grain slightly. If this occurs, lightly sand using 220 or 240 grit sandpaper to produce a smooth finish and wipe clean.

## Spec Sheet 2:9/3 - Repainting Interior Timber and Joinery (including MDF)

Repainting is usually straightforward. Care will be required when preparing to minimise surface imperfections, typically after sanding flaked painted areas and any filled areas. Cedar may have been used or there may be water-soluble stains which will need priming with Resene Enamel Undercoat rather than the waterborne Resene Quick Dry Primer. Generally an acceptable finish for interior wood work and joinery is higher than that expected for exterior paint finishes.

If painting over clear coated substrates refer to [Spec Sheet 2:9A/3](#).

**Step 1:** Treat mould with Resene Moss & Mould Killer; carefully use as a 50/50 dilution and wipe onto the affected areas. Take care to protect surfaces such as carpets, etc. and to follow safety recommendations on the label. [Data Sheet D80](#)

**Step 2:** Thoroughly wipe down (for flaking paint present, scrub using a synthetic scourer) using Resene Interior Paintwork Cleaner to remove all dirt, grease, stains, dust and other contaminants.

**Step 3:** Thoroughly scrape and sand the paintwork to remove all loose and flaking paint and to provide a key for subsequent coats. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Arriss sharp edges to give a slight radius, remove dust and immediately spot prime bare areas with Resene Quick Dry Acrylic Primer Undercoat and / or Resene Enamel Undercoat. [Data Sheet D45](#)

**Step 4:** Fill all holes and cracks with Resene Easy Fill GP Filler or equivalent product applied in accordance with manufacturer's directions. When dry, sand smooth and spot prime with Resene Quick Dry Acrylic primer undercoat.

**Note I:** If any staining is visible after the primer coat has dried then a stain blocking coat of Resene Enamel Undercoat will be needed. [Data Sheet D44](#)

**Note II:** Treat rotten and cracked timber as per [Spec Sheet 2:1A/3](#).

**Note III:** Where paint coatings need to be stripped refer to [Spec Sheet 2:1B/3](#).

## Spec Sheet 2:9A/3 - Painting Clear Coated Interior Timber and Joinery

Painting over previously clear coated timber is usually straightforward. An adhesion primer – Resene Smooth Surface Sealer - will be required to ensure the paint system adheres to the surface, which is typically hardened and glass-like. Normal paints will have compromised adhesion to these surfaces.

- Step 1:** Treat mould with Resene Moss & Mould Killer; carefully use as a 50/50 dilution and wipe onto the affected areas. Take care to protect surfaces such as carpets etc. and to follow safety recommendations on the label. [Data Sheet D80](#)
- Step 2:** Thoroughly wipe down (For flaking paint present scrub using a synthetic scourer) using Resene Interior Paint Cleaner to remove all dirt, grease, stains, dust and other contaminants.
- Step 3:** Thoroughly scrape and sand the paintwork to remove all loose and flaking paint and to provide a key for subsequent coats. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Arriss sharp edges to give a slight radius, remove dust and immediately spot prime bare areas with Resene Quick Dry Acrylic Primer Undercoat and / or Resene Enamel Undercoat. [Data Sheet D45/D44](#)
- Step 4:** Apply a full coat of Resene Smooth Surface Sealer as per the paint specification. [Data Sheet D47A](#)
- Step 5:** Fill all holes and cracks with Resene Easy Fill GP Filler or equivalent product applied in accordance with manufacturer's directions. When dry, sand smooth and spot prime with Resene Quick Dry Acrylic Primer Undercoat.
- Note I:** Step 2 does not require an additional coat of primer and should be read in conjunction with the painting specification for the project.
- Note II:** If any staining is visible after the primer coat has dried, then a stain blocking coat of Resene Enamel Undercoat will be needed. [Data Sheet D44](#)
- Note III:** Treat rotten and cracked timber as per [Spec Sheet 2:1A/3](#).
- Note IV:** Where paint coatings need to be stripped refer to [Spec Sheet 2:1B/3](#).

## SECTION 10 – Interior Timbers and Composite Board – Stained and Clear Finishes

### Spec Sheet 2:10/1 - Clear Finishing New (or Stripped) Timber and MDF

Good preparation and application (painting) techniques are critical to achieving a satisfactory finish when staining and clear finishing timber. A number of options are available to enhance and colour the timber before clear finishing. Staining using Resene Colorwood; oiling with Resene Danska Teak Oil; and blanding or whitewashing with Resene Colorwood Whitewash is covered in the specification itself.

Any filling of nail holes, etc., needs to be undertaken carefully in order to match the final finish. We have recommended that the first coat of clear finish is applied before any filling is completed. This is to prevent the filler staining or discolouring the surrounding timber. For MDF and other particle board substitutes, Resene Aquaclear Low Sheen as the first coat directly onto the timber composite or stained surface, if the solventborne Qristal polyurethane is specified. Particle boards contain soluble waxes which can inhibit the drying of solvent borne clear finishes resulting in patchiness and staining.

**Step 1:** Carefully sand to achieve a smooth even and blemish free surface, sharp edges should be carefully arressed to achieve a slightly rounded edge. Various grades and types of sandpaper and equipment may be employed to achieve the required result.

**Step 2:** If specified, apply the stain, oil or whitewash as per the manufacturer's recommendations. If not required move to Step 3 below.

**Step 3:** Apply the first coat of clear finish as per the specification. (For MDF or particle boards, use Resene Aquaclear.)

**Step 4:** Fill all cracks and nail holes, etc., with Red Enz Wood Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.

**Note I:** Step 3 does not require an additional coat of clear finish to that specified and should be read in conjunction with the specification for the project.

**Note II:** Colours should be matched to the surrounding timber.

**Note III:** Patchiness and / or lack of colour intensity of stains and blonded / whitewashed timber can be overcome by using Resene Colorwood Enhance in the clear finish. It can only be added to the waterborne urethane finish – Resene Aquaclear. [Data Sheet D59](#)

## Spec Sheet 2:10/3 - Reapplying a Clear Finish to Timber (and MDF)

Reapplying a clear finish is usually straight forward. A thorough clean to remove any surface contaminants, oils, grease, etc., and sanding to provide a key for the newly applied clear finish and to remove any imperfections is usually sufficient. As with new clear finishes, good preparation and application (painting) techniques are critical to achieving a satisfactory finish.

Staining, blanding, etc., is not possible unless the surface is stripped back to bare timber or surface. Subtle deepening and colour change without stripping is possible, if Resene Colorwood Enhance is used in the waterborne Aquaclear topcoats.

**Step 1:** Thoroughly wipe down using Resene Interior Paint Cleaner to remove all dirt, grease, stains, dust and other contaminants.

**Step 2:** Carefully sand to achieve a smooth even and blemish free surface, sharp edges should be carefully arrissed to achieve a slightly rounded edge. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge. Various grades and types of sandpaper and equipment may be employed to achieve the required result

**Step 3:** Fill all cracks and nail holes, etc., with Red Enz Wood Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.

**Note I:** Colours should be matched to the surrounding timber.

**Note II:** Patchiness and / or lack of colour intensity of stains and blonded / whitewashed timber can be overcome by using Resene Colorwood Enhance in the clear finish. It can only be added to the waterborne urethane finish – Resene Aquaclear. [Data Sheet D59](#)

## SECTION 11 – Flooring – Stained and Clear Finishes

### Spec Sheet 2:11/1 - New (or stripped) Flooring – Stain and Clear Finishes

Good preparation and application (painting) techniques are critical to achieving a satisfactory finish when staining and clear finishing timber. A number of options are available to enhance and colour the timber before clear finishing. Staining using Resene Colorwood; oiling with Resene Danska Teak Oil; and blanding or whitewashing with Resene Colorwood Whitewash is covered in the specification itself.

Any filling of nail holes, etc., needs to be undertaken carefully in order to match the final finish. We have recommended that the first coat of clear finish is applied before any filling is completed. This is to prevent the filler staining or discolouring the surrounding timber. For MDF and other particle board substitutes, Resene Particle Board Sealer as the first coat directly onto the timber composite or stained surface, if the solventborne Resene Polythane Moisture cured polyurethane is specified.

Particle boards contain soluble waxes which can inhibit the drying of solventborne clear finishes, resulting in patchiness and staining.

**Step 1:** Machine sand to achieve a smooth even and blemish free surface. When stripping a previously clear finished floor, sand to remove all previously applied coatings and surface contaminants. Dust off and vacuum entire surface.

**Step 2:** If specified, apply the stain, oil or whitewash as per the manufacturer's recommendations. If not required move to Step 3 below.

**Step 3:** Apply the first coat of clear finish as per the specification. (For MDF or particle boards, use Resene Particle Board Sealer). [Data Sheet 43](#)

**Step 4:** Fill all cracks and nail holes, etc., with Red Enz Wood Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.

**Note I:** Colours should be matched to the surrounding timber.

**Note II:** Step 3 does not require an additional coat of clear finish and should be read in conjunction with the specification for the project.

**Note III:** Patchiness and / or lack of colour intensity of stains and blanded / whitewashed timber can be overcome by using Resene Colorwood Enhance in the clear finish. It can only be added waterborne urethane finishes – Resene Qristal ClearFloor 1K and 2K.

[Data Sheet 506A](#)

## Spec Sheet 2:11/3 - Reapplying a Clear Finish to a Clear Coated Floor

Provided the floor to be recoated has a soundly applied and intact polyurethane coating and can be thoroughly cleaned to remove any contaminants from maintenance cleaning, a fresh coat of clear finish can be applied to it. Where there is any delamination or areas of bare timber exposed, it is recommended that the floor be completely stripped and treated as per a new floor - [Spec Sheet 2:11/1](#).

Many household floor cleaners contain silicone and other chemicals which will need to be removed before applying the system.

**Step 1:** Thoroughly wipe down using Resene Interior Paint Cleaner to remove all dirt, grease, stains, dust and other contaminants.

**Step 2:** Thoroughly scrape and sand to remove any loose and flaking old varnish. Ensure any areas of damaged varnish are thoroughly sanded to a feathered edge. Thoroughly sand to a matt finish with fine sandpaper to provide a good key for subsequent coatings. Machine sanding is strongly recommended for larger areas. Remove dust.

**Step 3:** Fill all cracks and nail holes, etc., with Red Enz Wood Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.

**Note I:** The good adhesion of the new coating system is highly dependent on the thoroughness of the previous preparation stages.

**Note II:** For best results complete removal of the old varnish is recommended. Otherwise the old coating must be sanded to a matt finish. Any areas of bare timber will probably end up lighter coloured. Do not proceed if this is not acceptable.

## SECTION 12 – Flooring – Painted Finish

### Spec Sheet 2:12/1 - Painting New (or Stripped) Timber and MDF Flooring

Good preparation and application (painting) techniques are critical to achieving a satisfactory finish when painting timber and MDF flooring. Selection of a paint system should be determined by its expected wear

Any filling of nail holes, etc., needs to be undertaken carefully in order to match the final finish. We have recommended that the primer is applied before any filling is completed. This is to prevent the filler staining or discolouring the surrounding timber.

- Step 1:** Machine sand to achieve a smooth even and blemish free surface. When stripping a previously clear/paint finished floor, sand to remove all previously applied coatings and surface contaminants. Dust off and vacuum entire surface.
- Step 2:** Apply the specified primer as per the specification.
- Step 3:** Fill all cracks and nail holes, etc., with Red Enz Wood Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.



## Spec Sheet 2:12/3 – Repainting painted timber, MDF, Strandboard Floors

Provided the floor to be repainted has a soundly applied and intact coating and can be thoroughly cleaned to remove any contaminants from maintenance cleaning. Where there is any delamination or areas of bare timber exposed, it is recommended that the floor be completely stripped and treated as per a new floor - [Spec Sheet 2:11/1](#).

Many household floor cleaners contain silicone and other chemicals which will need to be removed before applying the system.

- Step 1:** Thoroughly wipe down using Resene Interior Paint Cleaner to remove all dirt, grease, stains, dust and other contaminants.
- Step 2:** Thoroughly scrape and sand to remove any loose and flaking existing paint. Ensure any areas of damaged paint are thoroughly sanded to a feathered edge. Thoroughly sand to a matt finish with fine sandpaper to provide a good key for subsequent coatings. Machine sanding is strongly recommended for larger areas. Remove dust.
- Step 3:** Fill all cracks and nail holes, etc., with Red Enz Wood Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.
- Step 4:** Spot prime any bare areas and then apply a full coat of Resene Quick Dry Waterborne Primer Undercoat. [Data Sheet D45](#)
- Note I:** The good adhesion of the new coating system is highly dependent on the thoroughness of the previous preparation stages.

## SECTION 13 – Previously Stained Exterior Timber (including Plywood) – Paint Finishes

### Spec Sheet 2:13/3 – Previously Stained Exterior Timber ( including Plywood) – Paint Option

Previously stained timber and plywood generally presents some issues when changing to a solid paint finish.

If the previously used stain is a non-film forming type and not a mineral oil stain (see Note IV), then preparation is straightforward with the main issue being that there is likely to be moss and mould present.

If the stain is a surface forming stain (or varnish style), then the old stain will require removal.

**Step 1:** Treat moss and mould with Resene Moss & Mould Killer; use as directed on the label.

**Note I:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Thoroughly scrub down using a solution of Resene Timber and Deck Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label.

RINSE ADJACENT SURFACES WELL. Avoid contact with surfaces you are not treating, such as glass and aluminium joinery. If this does occur, wash product promptly off those surfaces with fresh water while still wet to avoid etching or damaging the surface. [Data Sheet D812](#)

**Step 3:** Sand any weathered bare timber (this will be grey) back to a sound timber surface. Ensure any sharp edges are arressed to a rounded profile. Apply Resene TimberLock to any areas of greyed timber. [Data Sheet D48](#)

**Note II:** Remove and replace rusty nails with galvanised or stainless steel nails as appropriate

**Note III:** Darker colours will absorb more heat and cause heat related issues such as cupping, splitting and warping, particularly if the boards have not been envelope sealed and / or have high moisture content. The use of Resene Cool Colour technology will help prevent but will not eliminate heat related issues.

**Note IV:** Old mineral oil stains are difficult to distinguish from traditional solventborne wood stains. They retain a degree of oil in the timber surface and this can negatively impact on the adhesion of non-mineral oil stains; including those from the Resene Woodsman range and result in premature failure. Preferably ascertain the nature of the stain used before applying the new paint system. If you are unsure please contact Resene Technical Services.

## **SECTION 14 – Interior Walls-particle board. Strandboard, MDF, plywood**

### **Spec Sheet 2:14/1 - New Interior Walls-particle board. Strandboard, MDF, plywood**

Painting new interior walls is usually straightforward in terms of the preparation required and paint systems that are recommended. However, the painter (applicator) is usually required to take greater care when preparing the surface, as well as applying the paint system. Generally an acceptable finish for interior wall paneling is higher than that expected for exterior timber.

- Step 1:** If required, sand to achieve a smooth even and blemish free surface (typically this will involve sanding with 180-240 grit sandpaper).
- Step 2:** Apply the primer coat as per the specification, allow to hard dry then lightly sand to de-nib.
- Step 3:** Fill all cracks and nail holes, etc., with Resene Ezy-Fill GP or PAL Contract Filler or equivalent product applied according to manufacturer's directions. Carefully remove excess filler.

## Spec Sheet 2:14/3 - Repaint Interior Walls-particle board, Strandboard, MDF, plywood

Repaints generally present few problems and issues, provided the previous paint system and wallboards are in sound condition. If this is the case, minor patching and gap filling after cleaning down is typically all that is required. How the walls are cleaned will be determined by the presence or otherwise of contaminants like oil, grease and soap residue on the surface or if cleaners, particularly those containing silicone, have been used.

With the majority of interior repaints, cleaning to remove dust, fly dirt and scuff marks is all that is required.

Old walls and ceilings, usually in bathrooms and kitchen areas, are likely to be painted in a solventborne enamel system. These walls will need a thorough sand to de-gloss the surface and provide a key for the fresh paint to adhere to. We recommend sanding all paints that are hard and glossy before over coating.

If unsure about the preparation requirements or if the surface is porous or embrittled (usually with age), contact the Resene Technical Helpline.

- Step 1:** If any areas of moss or mould infestation exist, then treat them Resene Moss & Mould Killer. Typically walls, other than wet areas, are unlikely to have mould or mildew present. If there is, it is likely to be mildew and it can be removed with a wipe of concentrated moss and mould killer on a damp cloth. [Data Sheet D80](#)
- Step 2:** Thoroughly wash using Resene Interior Paint Cleaner to remove dirt, dust and other surface contaminants. If there is grease and oils on the surface, usually in cooking preparation areas or around sinks, etc., wipe down using a sugar soap mix. The surface will need to be thoroughly rinsed to remove any residue, which will stain and discolour the topcoat system.
- Step 3:** Thoroughly scrape and sand to remove all loose and flaking paint and to provide a good key for painting. Thoroughly sand areas of flaking paint to a feathered edge.
- Step 4:** Fill all cracks or holes with Resene Ezy-Fill GP or PAL Contract Filler, applied according to the manufacturer's instructions. Once dry sand smooth.
- Step 5:** Seal repaired areas and any areas of bare substrate with Resene Broadwall Acrylic Wallboard Sealer or Resene Quick Dry Primer. [Data Sheet D403/D45](#)
- Note 1:** If any water-staining is visible on a wall or ceiling, then it is advisable to seal that entire surface with a full coat of Resene Waterborne Sureseal. Any water-soluble stains and marks, such as pen marks, etc. can either be sealed using Resene Waterborne Sureseal or Resene StainLock. [Data Sheet D42a/408](#)

## SECTION 15 – Previously Stained Interior Timber (including Plywood) – Paint Finishes

### Spec Sheet 2:15/3 – Previously Stained Interior Timber (including Plywood) – Paint Option

The practice of staining timber feature beams was a common feature of interior design in the 60's and 70's where the beams were required to be a room feature. The popularity of this has declined and the move to a uniform colour palette for a room requires the beams to be painted in a solid colour to match ceilings and sometimes walls.

There were several different stain options used, ranging from application of a tinted oil varnish to a tinted stain. Painting of these can be difficult as the original stain finish details have been lost over time. Stain bleed into the new paint system is a common occurrence and application of a stain blocker is required as part of the new paint system. Some of the stains would contain solvent and/or water-soluble pigments that can migrate into the new paint and discolour the new paint finish.

**Step 1:** Treat mould with Resene Moss and Mould Killer, carefully use as a 50:50 dilution and wipe onto the affected areas. Wear eye protection and gloves and take care to protect surfaces such as carpets, furniture etc. and to follow the application and safety recommendations on the label

**Note 1:** For heavy infestations, an additional application(s) may be needed. [Data Sheet D80](#)

**Step 2:** Sand using 220 grit sandpaper to profile for recoating.

**Step 3:** Apply a full coat of Resene Waterborne Sureseal [Data Sheet D42a](#)

## Glossary of Terms

<b>Architrave</b>	A moulding used as a surround to a door or window opening to cover the gap between the wall and the joinery.
<b>Arrised</b>	Sharp intersection of two surfaces (for example, the face of a piece of wood). An eased arris is one that has been slightly rounded.
<b>Art deco</b>	A style of housing from the 1930s, often associated with parapets, flat roofs and plaster finishes to exterior cladding.
<b>Asbestos</b>	A naturally-occurring mineral used in construction materials including roofing, insulation around hot pipes, and some flooring and textured ceilings. No longer used because when fibres are inhaled they can cause potentially life-threatening illnesses.
<b>Baluster</b>	Vertical support for a staircase handrail or railing at the edge of a balcony or veranda. Balusters are usually timber.
<b>Balustrade</b>	The handrail and balusters beside a staircase, or at the edge of a balcony or veranda.
<b>Barge Board</b>	The flat board at the edge of a gable roof, sometime shaped or decorated
<b>Batten</b>	A piece of sawn or dressed timber of rectangular section usually between 20 mm and 40 mm thick and 25 mm to 75 mm wide.
<b>Beam</b>	A structural member supported at two or more points. Exposed beams are sometimes used as decorative members and not necessarily to act in a structural or load-bearing capacity.
<b>Bearer</b>	A beam supported on jack studs, foundation walls, piles or piers and carrying joists, jack studs or subfloor framing.
<b>Bevel-back</b>	Weatherboards that taper to a thin upper edge.
<b>Borer</b>	Wood-boring insects in the larval stage which tunnel into wood.
<b>Bottom Plate</b>	A plate other than a wall plate placed under the bottom end of studs.
<b>Bungalow</b>	A style of housing taken from the west coast of the United States and Canada, often with timber cladding and a lower-pitched roof than a villa. The bungalow was the most common style of house built in new Zealand from the end of World War 1 to the Great Depression in the 1930s.
<b>Casement</b>	A side-opening sash.
<b>Cca</b>	Wood preservative that contains copper, chromium and arsenic.
<b>Cornice</b>	An ornamental timber or plaster moulding along the junction between wall and ceiling.
<b>Cupping</b>	Curvature across the width of a plank or board.
<b>Delamination</b>	Splitting apart into layers.
<b>Double-hung</b>	Windows that slide open vertically, sometimes also called sash windows, where each sash window is offset by a weight in the window surround.
<b>Dwang</b>	Short piece of timber tightly fixed between the vertical studs in wall framing. Also called noggin.
<b>Facing</b>	Plain unmoulded or moulded finish trim, such as an architrave, applied to openings and angles of a building.
<b>Fascia</b>	Wood or plywood trim that runs along the edge of the roof at the eaves. Guttering is usually attached to the fascia.
<b>Flashing</b>	Galvanised steel or other impervious material used in parts of a building to prevent penetration of moisture where different components meet.
<b>Head Flashing</b>	A flashing designed to prevent water leaking over the top of a window or door.
<b>Jamb</b>	Vertical side member of a door frame, door lining or window frame.
<b>Joist</b>	Horizontal framing member to which is fixed floor decking or ceiling linings and which is identified accordingly as floor joist or ceiling joist.

<b>Lintel</b>	A horizontal member spanning an opening in a wall.
<b>Particleboard</b>	A sheet panel manufactured by bonding together particles of wood.
<b>Plywood</b>	An assembled product made of up to two or more plies or veneers bonded together with the direction of the grain in alternate plies, usually at right angles.
<b>Rail</b>	Horizontal member of the window sash.
<b>Rebate</b>	Rectangle recess formed along the edge of a piece of material for the fitting of a frame, door, sash, or other component.
<b>Reveal</b>	Sides of a door or window opening between the frame and the face of the wall.
<b>Saddle Flashing</b>	Flashing to the top of a parapet or cornice.
<b>Sash</b>	A frame containing a pane or panes of glass and fitted in the window frame.
<b>Scriber</b>	A moulding used to cover an uneven gap.
<b>Shellac</b>	A natural wood sealer and finish made from resin secreted by small insects living on the lac trees of India and Thailand. Hardened resin flakes are mixed with methylated spirits to give a clear finish.
<b>Sill</b>	A horizontal shelf of wood at the foot of a door or window.
<b>Soaker</b>	Flashing at exterior mitred angle and butt joint of weatherboards.
<b>Soffit</b>	The lower face or under surface of anything, such as the underside of eaves of a roof.
<b>Wicking</b>	Absorbing or drawing up moisture by capillary action.
<b>Back-Priming</b>	Application of a coat of primer to the back of a panel. Cabinet doors should be back-primed to prevent warping.
<b>Engineered Wood Products</b>	Structural wood products manufactured by bonding together wood strands, veneers, lumber or other forms of wood fibre to produce a larger and integral composite unit with superior performance characteristics. These high performance building components achieve predictable and reliable performance characteristics with the efficient use of natural resources.
<b>Filler</b>	A material for filling nail holes, checks, cracks or other blemishes in surfaces of wood before application of paint, varnish or other finishes.
<b>Fire-Rated Systems</b>	Wall, floor and roof construction of specific materials and designs that has been tested and rated according to fire safety criteria (e.g., flame spread rate and fire resistance). Testing and approval are performed by agencies such as Underwriters Laboratories, Inc. A one-hour rating, for example, means that an assembly similar to that tested will neither collapse nor transmit flame or high temperature for at least one hour after a fire starts. Wood structural panels are an approved material in a number of fire-rated designs.
<b>Heartwood</b>	The non-active core of a tree distinguishable from the growing sapwood by its usually darker colour and greater resistance to rot and decay.
<b>Kiln-Dried</b>	Wood dried in ovens (kilns) by controlled heat and humidity used to dry solid wood to specified limits of moisture content. Veneers are kiln dried before lay-up in similar chambers.
<b>Knot</b>	Natural growth characteristic of wood caused by a branch base imbedded in the main tree stem.
<b>Marine Grade</b>	Plywood panels manufactured with the same glue line durability requirements as other Exterior-type panels but with more restrictive veneer quality and manufacturing requirements. The grade is particularly suitable for marine applications where bending is required, as in boat hulls.
<b>Preprimed</b>	A panel with a factory-applied primer or undercoat needing only final finish after installation.

<b>Preservatives</b>	Products which prevent wood- deterioration due to weather exposure, excessive moisture or insect attack. Treatments range from chemical pressure-impregnation, as for wood foundations, to application of paints or sealers.
<b>Rough Sawn</b>	A decorative APA Siding treatment imparting a rough, rustic appearance by saw-scoring the surface of a panel during manufacture. Same as resawn.
<b>Sapwood</b>	Living wood of a pale colour near the outside of a log. Under most conditions, sapwood is more susceptible to decay than heartwood.
<b>Seasoning</b>	Removal of moisture from wood to improve its serviceability, sometimes by air drying – drying by air exposure without artificial heat – or kiln drying -drying in a heated chamber with artificial heat. Plywood veneers and OSB furnish are seasoned before lay-up and gluing into panels.
<b>Soffit*</b>	The underside of the roof overhang. Wood structural panels are often used as finishing materials for soffits.
<b>Softwood</b>	Wood of the coniferous or needleleaved trees – pine, fir, spruce, hemlock – as distinct from the hardwood of the deciduous or broadleaved trees – oak, ash, maple, walnut. The term has only a general reference to actual wood hardness. Construction and industrial plywood and other panel products may use either variety, but are more commonly manufactured of softwoods.
<b>Warping</b>	Bending or twisting from a straight line. An improperly seasoned piece of lumber may warp when exposed to heat or moisture. To reduce the possibility of warping, protect wood panels from dampness or moisture and follow APA spacing recommendations. Painting and water-repellent dips will minimize moisture absorption. Sealing all edges and back-priming also reduces the chances of warping in cabinet doors.
<b>Wicking*</b>	The tendency of wood to draw moisture up through its cells by capillary action in the direction of the grain.