



## General Information and Recommendations Finger Jointed Radiata Pine

Approved by

# Master Painters Association



**General Information and Recommendations**

# Finger Jointed Radiata Pine

## Summary:

Many timber species are used when finger jointing. Radiata Pine Finger jointed products are manufactured by joining short lengths together with joints that look like interlocking fingers and allowing for more stability than single, large dimensional timber pieces which are sometimes susceptible to distortion and primarily cover two categories.

1. Structural where the joints are designed to have high tensile strength and maintain the strength over its full length, generally glue laminated beams.
2. Non-structural, generally serving a more decorative purpose, typically mouldings, jambs, fascia and weatherboards.

After manufacture, the timber species will retain their original characteristics which need to be considered when working with them. A common characteristic of all timber regardless of species is reaction to atmospheric conditions where fibres will swell with moisture and shrink when very dry. **Radiata Pine** is no different, a little care and understanding of Radiata will ensure best results can be achieved. Radiata Pine when used in both structural and non-structural purposes have a uniformity of colour and machines well, providing smooth, clean cuts and a minimum of crushing or splintering at the cut surface or face.

## Note:

The use of acrylic paint is common place however it is important to understand the associated effects when applied to different surfaces. When applied to timber by its very nature acrylic paint can penetrate and swell the fibres in the timber causing dimensional changes and in some cases raising the grain, if the timber is left to dry fully this should return to normal.

Generally, the recommend drying time for acrylic paint is 25 mins for touch dry and a further 2 hours before application of another coat. This time is for the paint to dry, not the timber substrate. When acrylic paint is applied to high quality oil based primer / undercoat this primer undercoat should be allowed to dry for a minimum of 24 hours, prior to application of acrylic paint coatings.

The use of full gloss paint on trims is common practice however this may highlight natural or manufacturing characteristics of the substrate, therefore the use of Semi- Gloss is highly recommended to avoid this happening and still offer an excellent finish. Such characteristics will in no way affect the performance of the trimmings.

Professional and skilled persons should have a sound knowledge of differing timber characteristics when undertaking associated work to achieve the best possible results with all species. It is a recommendation that after careful preparation of the surface, first apply one full coat of selected premium quality oil based Primer/Sealer and allow to fully dry an additional two second coats of high quality paint are then required allowing for sufficient drying time between coats and light sanding if considered necessary. In most cases this should give the desired result with a lasting performance. More detailed recommendations included later.

Refer Master Painter's [www.masterpainters.org.au](http://www.masterpainters.org.au)

# Resin Bleed

Most Pinus Species (softwoods) irrespective raw or treated contain resin, a mix of turpentine and rosin which under certain conditions will exude from, heartwood and sapwood onto the surface of the timber or may occur through the painted surface as the resin leaches through the paint coating. In some instances, resin bleed does not appear to damage the coating, in other instances, resin bleed causes discolouration of the painted surface, severe instances may exhibit themselves as crusty crystallized substances on the surface while being soft and viscous underneath. Knots whether visible or concealed often have higher concentration of resin and can result in discolouration of the painted surface, this is known as knot bleed.

## Examples of resin / knot bleed



## Common causes

- High moisture content – usually from inadequate handling and or storage
- Spirit based solvents in paints, lacquers and treatments
- The non-use of primers and undercoats without a stain blocking agent
- Presence of visible or concealed knots and defects
- Hot sheltered areas
- Heat generated from sanding
- Direct sunlight for prolonged periods
- Dark painted colours (LVR less than 45%)

Repairs often provide a reprieve however the prevention of any future resin transfer can't be guaranteed.

## Remedies

- ❖ For light discolouration, light sand and spot prime using premium quality oil based primer/undercoat or recommended primer undercoat with blocking agent, allow 24hrs to dry and repaint affected areas.
- ❖ For sever instances, physically remove all solid resin, sand affected area with coarse sandpaper, use low speed power sander or hand sand to avoid heating resin therein.
- ❖ Allow to acclimatize or weather for an extended period, dependent on severity this could be a week or more to allow resins to drain naturally. Repeat removal sanding and acclimatizing and weathering if necessary.
- ❖ Prime using premium quality oil based primer/undercoat or recommended primer undercoat with blocking agent, allow 24hrs to dry and repaint affected areas.

Note: Resin bleeds are unpredictable, once affected there is no guarantee this occurrence can be prevented from continuing. Special primer paints have been formulated to lessen resin and knot bleed show through in the top coat of paint. Seek advice from all quality paint manufactures on their recommendations.

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# Handling Storage & Installation

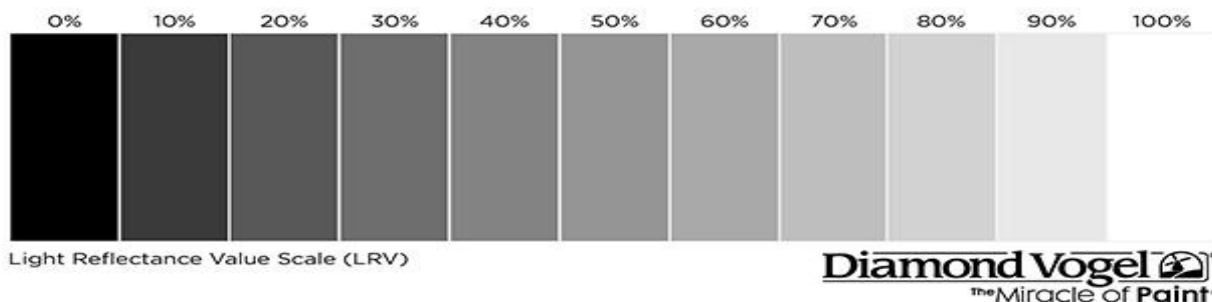
## Applications:

**Untreated FJ Radiata Pine products** are meant for use in a dry interior application where a paint finish will be expected and are not designed for exposed external use. Moisture content of the product should be always kept below 12%, the use of an accurate moisture meter will help determine this. General uses include architraves, door jambs and skirting boards.

**Treated FJ Radiata Pine products** are acceptable for exterior use “above ground” and “**must not be in contact with the ground during and after installation**”. A minimum ground clearance of 200mm is recommended. Typical applications include handrails and balustrades, veranda and pergola components, fascia, cladding and more. When painting exterior product, the choice of paint colours can make a difference to performance, light colours with a light reflective value (LVR) of 45 or more, are the most recommended as a colour preference, the use of dark colours can attract and absorb heat. Check with your paint supplier for further recommendations.

## Light Reflectance Value

LRV is measured on a scale that ranges from zero (absolute black, absorbing all light and heat) to 100 percent (pure white, reflecting all light).



## Delivery:

To site should be just in time either by hi-ab or hand unload. Do not use a tip truck.

## Onsite storage, Moisture Content and Acclimatization:

1. Do not store or leave in direct sunlight.
2. Store indoors only and keep dry.
3. Place on a flat, well ventilated surface approx. 150mm off the ground on bearers at even centres of approx. 900mm apart to allow for moisture adjustment. If the surface underneath is damp, place a moisture resistant sheet (e.g. polythene) under the product,
4. If wet by any manner, time must be given to dry product to a suitable moisture content prior to application of paint to ensure no moisture is locked within with the application of the paint. Moisture content must be between 8 - 12% to ensure product is ready for paint application, if surface is damp underneath, applying a paint coating will only compound problems later. The application of further coats of acrylic paint locks in moisture which could cause rotting from the inside.
5. Allowing 48 hours for product to acclimatize, use moisture meter for accurate readings.

**IMPORTANT NOTE:** Most problems are often the result of substandard storage and acclimatization, there will be no warranty on any product that has not adhered to any or all handling, storage, installation and painting recommendations outlined. The use of an accurate moisture meter is recommended.

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### **Sealing/Priming**

All cut ends and edges to be sealed with 2 coats of oil based primer immediately after cutting and before installation. The use of acrylic paint on bare timber is not the preferred method. Acrylic paint dries laterally and has less chance to penetrate.

### **Installation:**

**Check for damage or defects, if found return immediately, installation of product signifies product is acceptable for intended purpose.**

For the best results when installing any Finger Jointed Pine product, always ensure industry standards and 'best practice' are performed throughout all areas of construction. Compliance too national, state and local codes is essential. **Installation should only be undertaken by skilled persons, inspection of all products prior to installation is essential, as the installation of products signifies an acceptance that the product meets all predetermined expectations, If, product does not meet all predetermined expectations, it should not be installed and returned as soon as possible to the place of purchase.** In the case where boards overlap i.e. "weatherboards" Do not use any sealants or glues between the board laps as this may inhibit the naturally occurring movement of the cladding, and trap moisture. Nails should be punched below the surface and filled immediately with a non-corrosive exterior wood filler.

### **Damp Buildings:**

Finger Jointed Pine or Finger Jointed Treated Pine products should not be fixed to new cement rendered walls, or walls which are permanently or intermittently damp. The cause of moisture must be corrected and the walls be allowed to dry before installation.

**No exceptions made once installed.**

## **Painting recommendations**

### **Three Coat system:**

**The preferred choice for optimum finish being 1 coat undercoat with two top coats.**

### **Putties, Resins and Sealants:**

When using putties, resins and sealants with Finger Jointed Pine and Treated Pine mouldings, ensure they are compatible with the Primer/Sealer and top coat paint to be used. If you are unsure, seek advice from the paint manufacturer.

### **Primers/Sealers and top coats:**

The use of a Premium Quality Oil based Primer/Sealer followed by two selected Premium Quality top coats is recommended on all products, additionally Premium" primers and selected "Premium" top coats as specified by coating manufacturers may be used in accordance with their directions. or per manufacturers specification.

**All products should be painted as soon as possible after installation, and no more than 30 days after installation. Locations proximity to coastal areas should be painted within 7 days of installation.**

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## **Finger Jointed Pine Products – Un primed for internal use**

To ensure the optimum finish, the following is recommended:

1. Remove all dirt, dust, grease, or other contaminants before painting.
2. Set fasteners slightly below the moulding surface then prime with Premium Quality Primer/Sealer.
3. All nail holes should be filled with proprietary non-shrinking, fast-dry interior grade wood filler after priming.
4. Lightly sandpaper smooth and remove any nibs or blemishes which have occurred during fixing.
5. An additional Two second top coats are then required allowing for sufficient drying time between coats and light sanding if considered necessary.
6. If un-primed finger jointed pine product has been exposed to moisture and caused to have temporary dimensional swelling prior to final painting, it is essential the product be given time to dry out and return to its natural moisture levels before the final coats are applied.

## **Finger Jointed Pine Products – Untreated & Primed for internal use**

The primer on Primed Finger Jointed Pine Products is evenly applied and will help minimize preliminary painting. The primer does not necessarily take the place of a premium quality Primer/Sealer and is entirely dependent on its condition after installation due to handling and other procedures. Should the product be exposed to moisture prior to painting, the primer will not protect against moisture uptake, the use of an accurate moisture meter is recommended. Should this result in temporary dimensional swelling, it is essential the product be given time to dry fully and return to its natural moisture levels before a Primer/Sealer and final two coats are applied. To ensure the optimum finish, the following is recommended:

1. Remove all dirt, dust, grease, chalk, or other contaminants before painting; if necessary, clean gently with detergent and water, or like to prepare for primer/sealer. Allow to dry before primer/sealer is applied.
2. Thoroughly reprime and seal all saw cuts for product going in to wet area installations to minimise moisture uptake.
3. Set fasteners slightly below the moulding surface. If the primer appears to become chalky or loose, lightly sand these areas as required and re prime with a quality primer.
4. All nail holes should be filled with wood filler, timber/linseed oil putty after timber has been primed.
5. Lightly sandpaper smooth and remove any nibs or blemishes, which have occurred during fixing.
6. An additional Two top coats of Premium Quality paint are then required allowing for sufficient drying time between coats and light sanding if considered necessary.
9. Pre-Primed Finger Jointed Pine will minimize moisture uptake, however, should they be exposed to moisture prior to installation of final painting which results in dimensional swelling, it is essential the product be given time to dry fully and return to its natural moisture levels before the final coats are applied.

**All products should be painted as soon as possible after installation, and no more than 30 days after installation. Locations proximity to coastal areas should be painted within 7 days of installation.**

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## Finger Jointed Treated Pine – Primed internal or external above ground

The primer on all Finger Jointed Pine Products is evenly applied and will help minimize preliminary painting. The primer does not necessarily take the place of a premium quality Primer/Sealer and is entirely dependent on its condition after installation due to handling procedures. Should the product be exposed to moisture prior to painting, the primer will not protect against moisture uptake, the use of an accurate moisture meter is recommended. Should this result in temporary dimensional swelling, it is essential the product be given time to dry fully and return to its natural moisture levels before a Primer/Sealer and final two coats are applied. To ensure the optimum finish, the following is recommended:

To help reinforce durability, it is necessary that any saw cuts, ripping, machining, or profiling exposing bare wood, be resealed with an appropriate wood preservative end sealer prior to re priming. After the preservative, has dried apply a premium quality oil based primer, allow for drying before being fixed into position. Many products including cladding and weatherboards must be fully Primed/Sealed on the face, back of the board and all edges before installation with the Primer/Sealer paint being pre-mixed to the same or similar colour as the chosen top coat thereby allowing for extra protection during construction and so maintaining consistent colouring after natural movement due to localized climatic conditions. To ensure the optimum finish, the following is recommended:

**Most producers use Architectural grade primer**, but it is still imperative to prevent direct moisture exposure (rain, mist, snow) or other contamination before installation and final paint as the primers adhesion properties may be affected.

**First test the adhesion of the primer to the timber. Cut a small “x” through the existing coating with a sharp blade. Press cellulose tape firmly across the cut and then rip off the tape. If any of the existing coating comes off, it is unsound and must be removed by sanding. If in any doubt sand the surface before painting.**

1. Remove all dirt, dust, grease, chalk, or other contaminants before painting; if necessary, clean gently with detergent and water or like to prepare for primer/sealer. Allow to dry before primer/sealer.
2. Cladding, lining board and weatherboards must be fully encased with Primer/Sealer on face, back of the board and all edges before installation. The Builder/installer is responsible to ensure the product is fully encased, prior to installation, this may mean painters need to quote separately, to prime/seal product prior to installation.
3. Set fasteners slightly below the moulding surface, If the primer appears to, or becomes chalky or loose, lightly sand these areas as required and re prime with a Premium Quality primer. In severe cases apply one full coat of Premium Quality primer.
4. All nail holes should be filled with wood filler, timber/linseed oil putty, after timber has been primed
5. Lightly sandpaper smooth and remove any nibs or blemishes, which have occurred during fixing.
8. Two top coats are then required allowing for sufficient drying time between coats and light sanding if considered necessary as per specification.
9. Pre-Primed Finger Jointed Pine will minimize moisture uptake, however, should they be exposed to moisture prior to installation of final painting which results in dimensional swelling, it is essential the product be given time to dry fully and return to its natural moisture levels before the final coats are applied.

**All products should be painted as soon as possible after installation, and no more than 30 days after installation. Locations proximity to coastal areas should be painted within 7 days of installation.**

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