

Substrate Characteristics

Timber is a dimensionally unstable material that expands and contracts with changing moisture content. The timber surface is eroded by ultra violet light, normally changing to a grey colour leaving cellulose fibres exposed on the surface. Timber also provides a source of nutrient for mould growth. A protective system for timber needs to combat these three sources of aggression, viz. water, ultra violet light and mould. Naturally occurring anti-oxidants in Matai, Merbeau, Spotted Gum and Totara inhibit the curing of oxidatively drying paints including solventborne enamels, primers, undercoats, oil modified urethanes and solventborne stains. These materials may transfer through any solventborne system to affect subsequent coats. Highly filled undercoats may give an impression of having dried without really curing.

Surface Preparation

New Work - see [Surface Preparation D82](#) for detailed preparation guidelines.

Repaints - see [Surface Preparation D87](#) for detailed preparation guidelines.

9e 1 Exterior Waterborne

Waterborne paints are most suitable for exterior applications being more durable and flexible than solventborne paints. All unsealed cracks and end grains must be sealed to prevent moisture penetration. Sharp edges on timber are difficult to coat as paint tends to flow away from edges leaving weak spots – ensure all sharp edges and rough profiles are rounded before painting to promote good film build. Optional over bare timber is pretreatment with Resene TimberLock (see [Data Sheet D48](#)) to improve the durability of subsequent coatings. For better hiding, Resene Acrylic Undercoat (see [Data Sheet D404](#)) tinted to the correct colour may replace one of the topcoats.

Generic Specification				Resene Spec No.	Resene One-Line Specification					
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat		
Matai, Merbeau Spotted Gum and Totara	Exterior	Waterborne	Gloss	9e 1.1	D82 & TimberLock D48	Quick Dry	D45	Hi-Glo * D31 Acrylic Undercoat D404	Hi-Glo * D31	
Matai, Merbeau Spotted Gum and Totara	Exterior	Waterborne	Semi-Gloss		9e 1.2	D82 & TimberLock D48	Quick Dry	D45	Sonyx 101 * D30 Acrylic Undercoat D404	Sonyx 101 * D30
Matai, Merbeau Spotted Gum and Totara	Exterior	Waterborne	Satin			9e 1.3	D82 & TimberLock D48	NRS: Quick Dry SP: Lumbersider	D45 D34	Lumbersider D34 Acrylic Undercoat D404 Lumbersider D34

* For doors, windows and joinery, use Resene Enamacryl (see [Data Sheet D309](#)) in place of Resene Hi-Glo (see [Data Sheet D31](#)) and Resene Lustacryl (see [Data Sheet D310](#)) in place of Resene Sonyx 101 (see [Data Sheet D30](#)).

9e 2 Exterior Solventborne

Resene Quick Dry Acrylic Primer (see [Data Sheet D45](#)) is the recommended primer for maximum flexibility and durability and required to seal off the anti-oxidant in the timber. All solventborne air-drying enamels slowly embrittle with age and dark colours exposed to the sun accelerate this embrittlement. Windowsills angled in a manner to catch maximum sun provide the most stressful environment. Solventborne paints are suitable for all timber joinery including doors and windows. Because doors tend to be people's first point of contact, it is important an immaculate finish is achieved by using a high quality brush or roller. Optional over bare timber is pretreatment with Resene TimberLock to improve the durability of subsequent coatings. For better hiding, Resene Acrylic Undercoat tinted to the correct colour may replace one of the topcoats. Semi-gloss and flat solventborne paints do not have the necessary weather resistance for exterior exposure. Clear finishes for exterior timber environments are generally not recommended.

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Matai, Merbeau Spotted Gum and Totara	Exterior	Solventborne	Gloss	9e 2.1	D82 & TimberLock D48	Quick Dry D45	Acrylic Undercoat D404	Super Gloss D32

Key: NRS = Normal Recommended System SP = Self Priming

If in doubt about any aspect of your specification please contact Resene.

**Exterior
Matai,
Merbeau,
Spotted Gum
and Totara
only**

Substrate Characteristics

Timber is a dimensionally unstable material that expands and contracts with changing moisture content. Timber provides a source of nutrient for mould growth and a protective system for timber needs to combat this. Naturally occurring anti-oxidants in Matai, Merbeau, Spotted Gum and Totara inhibit the curing of oxidatively drying paints including solventborne paints, primers, undercoats, oil modified urethanes and solventborne stains. These materials may transfer through any solventborne system to affect subsequent coats. Highly filled undercoats may give an impression of having dried without really curing.

Surface Preparation

New Work - see [Surface Preparation D82](#) for detailed preparation guidelines.
Repaints - see [Surface Preparation D87](#) for detailed preparation guidelines.

9i 1 Interior Waterborne

Waterborne enamels Resene Enamacryl (see [Data Sheet D309](#)) and Resene Lustacryl (see [Data Sheet D310](#)) may be used in areas traditionally reserved for solventborne paints with the added benefits of non-yellowing, fast drying and low odour. Resene SpaceCote Low Sheen (see [Data Sheet D311](#)) is designed to bring enamel-style toughness to broadwall areas in a low sheen finish without sacrificing durability. It is so adaptable that it may also be used on interior and exterior joinery and trim. For better hiding, Resene Acrylic Undercoat (see [Data Sheet D404](#)) tinted to the correct colour may replace one of the topcoats.

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Gloss	9i 1.1	D82 & TimberLock D48	Quick Dry D45	Enamacryl Acrylic Undercoat	D309 D404 Enamacryl D309
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Semi-Gloss	9i 1.2	D82 & TimberLock D48	Quick Dry D45	Lustacryl Acrylic Undercoat	D310 D404 Lustacryl D310
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Low Sheen	9i 1.4	D82 & TimberLock D48	Quick Dry D45	SpaceCote Low Sheen Acrylic Undercoat	D311 D404 SpaceCote Low Sheen D311
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Flat	9i 1.5	D82 & TimberLock D48	Quick Dry D45	SpaceCote Flat Acrylic Undercoat	D314 D404 SpaceCote Flat D314

9i 2 Interior Solventborne

Resene Quick Dry Acrylic Primer Undercoat (see [Data Sheet D45](#)) is the recommended primer for maximum flexibility, durability and required to seal off the anti-oxidants in the timber. Although higher gloss products are harder wearing than semi-gloss and flat solventborne paints, they will highlight surface imperfections. Pretreatment with Resene TimberLock (see [Data Sheet D48](#)) is recommended for timber in wet areas, such as bathrooms, laundries and windowsills, where condensation occurs. All enamels yellow somewhat in the absence of light, most noticeably in cupboards and behind pictures. Exposure to light bleaches out the yellow. For better hiding, Resene Acrylic Undercoat tinted to the correct colour may replace one of the topcoats.

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Matai, Merbeau Spotted Gum and Totara	Interior	Solventborne	Gloss	9i 2.1	D82 & TimberLock D48	Quick Dry D45	Acrylic Undercoat	D404 Super Gloss D32
Matai, Merbeau Spotted Gum and Totara	Interior	Solventborne	Semi-Gloss	9i 2.2	D82 & TimberLock D48	Quick Dry D45	Lusta-Glo Acrylic Undercoat	D33 D404 Lusta-Glo D33
Matai, Merbeau Spotted Gum and Totara	Interior	Solventborne	Flat	9i 2.5	D82 & TimberLock D48	Quick Dry D45	Flatcote Acrylic Undercoat	D306 D404 Flatcote D306

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**Interior
Matai,
Merbeau,
Spotted
Gum and
Totara
only**

Substrate Characteristics

Timber is a dimensionally unstable material that expands and contracts with changing moisture content. The timber surface is eroded by ultra violet light, normally changing to a grey colour leaving cellulose fibres exposed on the surface. Timber also provides a source of nutrient for mould growth. A protective system for timber needs to combat these three sources of aggression; viz. water, ultra violet light and mould. Naturally occurring anti-oxidants in Matai, Merbeau, Spotted Gum and Totara inhibit the curing of oxidatively drying paints including solventborne paints, primers, undercoats, oil modified urethanes and solventborne stains. These materials may transfer through any solventborne system to affect subsequent coats. Highly filled undercoats may give an impression of having dried without really curing.

Surface Preparation

New Work - see [Surface Preparation D82](#) for detailed preparation guidelines.
Repaints - see [Surface Preparation D87](#) for detailed preparation guidelines.

9e 3/4 Exterior Waterborne/Solventborne

Generally solventborne, oxidatively film forming stains cannot successfully be used, due to the presence of anti-oxidants in the timber. Non film forming, penetrating stains, such as Resene Woodsman (waterborne see [Data Sheet D57a](#), solventborne see [Data Sheet D57](#)) are suitable but even so, excess material must be wiped from the surface. Semi-transparent stains are not as durable as fully pigmented systems and Resene Woodsman will require maintenance after two summers.

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Matai, Merbeau Spotted Gum and Totara	Exterior	Waterborne	Flat	9e 3.5	D82	Waterborne Woodsman D57a	Waterborne Woodsman D57a	Waterborne Woodsman D57a (after 3 months)
Matai, Merbeau Spotted Gum and Totara	Exterior	Solventborne	Flat			9e 4.5	D82	Woodsman D57

9i 3/4 Interior Waterborne/Solventborne

Ensure sharp edges and rough profiles are rounded before painting to promote good film build. All unsealed cracks and end grains, such as under doors, must be sealed to prevent isolated blistering caused by moisture penetration. For floors and where a really tough surface is required Resene Polythane (see [Data Sheet D53](#)) is the best recommendation. An additional coat is recommended on flooring surfaces. Oxidatively drying clears such as the Resene Qristal Clear polyurethane range (see [Data Sheet D52](#)) require a waterborne sealer to seal off the natural anti-oxidants present in Matai, Merbeau, Spotted Gum and Totara.

Generic Specification				Resene Spec No.	Resene One-Line Specification					
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat	4th Coat optional	
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Gloss	9i 3.1	D82	Aquaclear D59	Aquaclear D59	Aquaclear D59	Aquaclear D59	
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Semi-Gloss			9i 3.2	D82	Aquaclear D59	Aquaclear D59	Aquaclear D59
Matai, Merbeau Spotted Gum and Totara	Interior	Waterborne	Satin	9i 3.3	D82			Aquaclear D59	Aquaclear D59	Aquaclear D59
Matai, Merbeau Spotted Gum and Totara	Interior	Solventborne	Gloss			9i 4.1	D82	NRS: Aquaclear D59 HDS: Polythane D53	Poly-Gloss D52 Polythane D53	Poly-Gloss D52 Polythane D53
Matai, Merbeau Spotted Gum and Totara	Interior	Solventborne	Satin	9i 4.3	D82			Aquaclear D59	Poly-Satin D52	Poly-Satin D52
Matai, Merbeau Spotted Gum and Totara	Interior	Solventborne	Flat			9i 4.5	D82	Aquaclear D59	Poly-Flat D52	Poly-Flat D52

Key: HDS = Heavy Duty System NRS = Normal Recommended System

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Exterior and Interior Stains and Clear Finishes on Matai, Merbeau, Spotted Gum and Totara