

## 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, and 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.

## Surface Preparation

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

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

## 3e 1 Exterior Waterborne

Resene Enamacryl (see [Data Sheet D309](#)) and Resene Lustacryl (see [Data Sheet D310](#)) may be used in areas traditionally reserved for solventborne paints. Resene Enamacryl and Resene Lustacryl are non-yellowing, fast drying, block and grease resistant and low in odour compared to their solventborne counterparts. For better hiding, Resene Acrylic Undercoat (see [Data Sheet D404](#)) tinted to the correct colour may replace one of the topcoats. 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
Timber Joinery etc.	Exterior	Waterborne	Gloss	3e 1.1	D82 & TimberLock D48	NRS: Quick Dry D45 TTS: Wood Primer D40	Enamacryl D309 Acrylic Undercoat D404	Enamacryl D309
Timber Joinery etc.	Exterior	Waterborne	Semi-Gloss					

## 3e 2 Exterior Solventborne

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. Pretreatment with Resene TimberLock (see [Data Sheet D48](#)) is highly beneficial, particularly on older doors and windows where joints may have opened slightly. 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. 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
Timber Joinery etc.	Exterior	Solventborne	Gloss	3e 2.1	D82 & TimberLock D48	NRS: Quick Dry D45 SS: Wood Primer D40	Acrylic Undercoat D404	Super Gloss D32

**Key:** NRS = Normal Recommended System    SS = Solvent System    TTS = Timber That Stains

## Exterior Timber Joinery

Doors and Windows

For Cedar see [8e](#)

For Matai and Totara see [9e](#)

## Substrate Characteristics

Timber is a dimensionally unstable material that expands and contracts with changing moisture content. Timber also provides a source of nutrient for mould growth.

## Surface Preparation

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

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

## 3i 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. Use Resene Wood Primer (see [Data Sheet D40](#)) when a staining type of timber is present.

## Interior Timber Joinery

Cupboards, Doors, Shelves and Windows etc

For Matai and Totara see [9i](#)

Generic Specification				Resene Spec No.	Resene One-Line Specification			
Substrate	Environment	Paint Type	Gloss Level		Surface Prep	1st Coat	2nd Coat	3rd Coat
Timber Joinery etc.	Interior	Waterborne	Gloss	<b>3i 1.1</b>	D82 & TimberLock D48	NRS: Quick Dry D45 TTS: Wood Primer D40 POV: WB Smooth S.S. D47a	Enamacryl D309 Acrylic Undercoat D404	Enamacryl D309
Timber Joinery etc.	Interior	Waterborne	Semi-Gloss			<b>3i 1.2</b>	D82 & TimberLock D48	NRS: Quick Dry D45 TTS: Wood Primer D40 POV: WB Smooth S.S. D47a
Timber Joinery etc.	Interior	Waterborne	Low Sheen	<b>3i 1.4</b>	D82 & TimberLock D48			NRS: Quick Dry D45 TTS: Wood Primer D40 POV: WB Smooth S.S. D47a
Timber Joinery etc.	Interior	Waterborne	Flat			<b>3i 1.5</b>	D82 & TimberLock D48	NRS: Quick Dry D45 TTS: Wood Primer D40 POV: WB Smooth S.S. D47a

## 3i 2 Interior Solventborne

Although higher gloss levels are harder wearing than semi-gloss and flat solventborne finishes, they will highlight surface imperfections. Pretreatment with Resene TimberLock (see [Data Sheet D48](#)) is recommended for timber in wet areas, such as in bathrooms, laundries and on windowsills, where condensation occurs. All solventborne, air-drying 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
Timber Joinery etc.	Interior	Solventborne	Gloss	<b>3i 2.1</b>	D82 & TimberLock D48	NRS: Quick Dry D45 POV: WB Smooth S.S. D47a	Acrylic Undercoat D404	Super Gloss D32
Timber Joinery etc.	Interior	Solventborne	Semi-Gloss			<b>3i 2.2</b>	D82 & TimberLock D48	NRS: Quick Dry D45 POV: WB Smooth S.S. D47a
Timber Joinery etc.	Interior	Solventborne	Flat	<b>3i 2.5</b>	D82 & TimberLock D48			NRS: Quick Dry D45 POV: WB Smooth S.S. D47a

**Key:** NRS = Normal Recommended System    POV = Painting Over Varnish    SS = Solvent System    TTS = Timber That Stains

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

## Substrate Characteristics

Timber is a dimensionally unstable material that expands and contracts with changing moisture content. Timber also provides a source of nutrient for mould growth.

## Surface Preparation

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

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

## 3i 3 Interior Waterborne

For a stained finish use Resene Waterborne Colorwood (see [Data Sheet D50a](#)), reduced if necessary to the desired finish with Resene Waterborne Colorwood Reducing Base. For a natural finish, the colour of the timber is enhanced by the application of Resene Waterborne Colorwood Reducing Base. Follow this with three coats of Resene Aquaclear (see [Data Sheet D59](#)). 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.

## Interior Stains and Clear Finishes on Timber Joinery

Cupboards, Doors, Shelves and Windows etc

For Matai and Totara see [9e/i](#)

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	5th Coat optional
Timber Joinery etc.	Interior	Waterborne	Gloss	<b>3i 3.1</b>	D82	SF: Waterborne Colorwood D50a CF: Waterborne Colorwood Reducing Base D50a (optional)	Aquaclear D59	Aquaclear D59	Aquaclear D59	Aquaclear D59
Timber Joinery etc.	Interior	Waterborne	Semi-Gloss	<b>3i 3.2</b>	D82	SF: Waterborne Colorwood D50a CF: Waterborne Colorwood Reducing Base D50a (optional)	Aquaclear D59	Aquaclear D59	Aquaclear D59	Aquaclear D59
Timber Joinery etc.	Interior	Waterborne	Satin	<b>3i 3.3</b>	D82	SF: Waterborne Colorwood D50a CF: Waterborne Colorwood Reducing Base D50a (optional)	Aquaclear D59	Aquaclear D59	Aquaclear D59	Aquaclear D59

## 3i 4 Interior Solventborne

For a stained finish use Resene Waterborne Colorwood, reduced if necessary to the desired colour with Resene Waterborne Colorwood Reducing Base. For a natural finish, the colour of the timber is enhanced by the application of Resene Waterborne Colorwood Reducing Base. Follow this with three coats from the Resene Qristal Clear polyurethane range (see [Data Sheet D52](#)). 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.

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
Timber Joinery etc.	Interior	Solventborne	Gloss	<b>3i 4.1</b>	D82	SF: WB Colorwood D50a CF: WB Colorwood Reducing Base D50a (optional) HDF: Polythane D53	Poly-Flat D52	Poly-Gloss D52	Poly-Gloss D52
Timber Joinery etc.	Interior	Solventborne	Satin	<b>3i 4.3</b>	D82	SF: WB Colorwood D50a CF: WB Colorwood Reducing Base D50a (optional) PBO: Aquaclear D59	Poly-Flat D52	Poly-Satin D52	Poly-Satin D52
Timber Joinery etc.	Interior	Solventborne	Flat	<b>3i 4.5</b>	D82	SF: WB Colorwood D50a CF: WB Colorwood Reducing Base D50a (optional) PBO: Aquaclear D59	Poly-Flat D52	Poly-Flat D52	Poly-Flat D52

**Key:** For Particle and Fibre Board replace this coat with one coat of Resene Particle Board Sealer (see [Data Sheet D43](#))

CF = Clear Finish    HDF = Heavy Duty Finish    PBO = Particle Board Only    SF = Stained Finish

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