Ever thought a house or building would look great painted in a sleek, dark colour – then had to shelve plans for fear of the heat damaging the substrate or the building getting unbearably hot in summer?

Resene CoolColour™ technology makes painting exterior surfaces in dark colours both easier and safer. It can be used on all sorts of exterior materials and applications, from weatherboards and concrete to windowsills. A Resene CoolColour looks like a normal colour but thanks to special pigment technology it reflects more heat, so it doesn't get as hot as a standard colour would.

When looking at the role paint can play in temperature control in buildings it comes down to colour. The ability of white to reflect visible light extends through the infra-red and, because of this, white surfaces remain relatively cool to touch, even in direct sunlight. The opposite is true of black and dark colours, which absorb light in this infra-red area, resulting in significant heat build-up in the surface. As the emissivity of paints is not particularly good, the surface heat is conducted into the substrate and then radiated into the building.

Adidas Head Office, Resene Sonyx 101 CoolColour™ custom tinted to Adidas Black.

Tasman residence, Resene Waterborne Woodsman CoolColour™ tinted to Resene Pitch Black.

sustainable

colour paint

advice

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Keep your place cooler with a Resene CoolColour™

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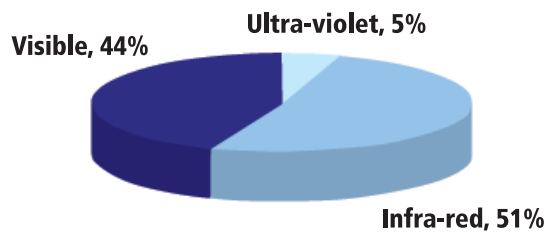
Energy distribution of sunlight

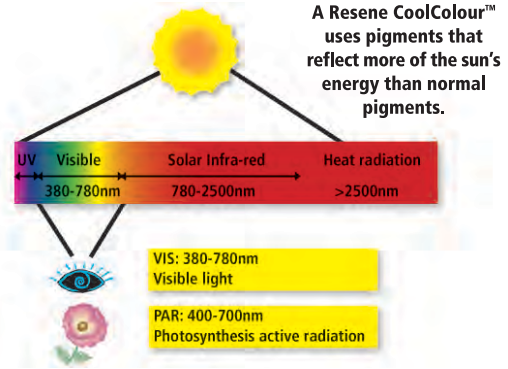


Sunlight energy is made up of 44% visible light, 5% ultra-violet light and 51% infra-red light.

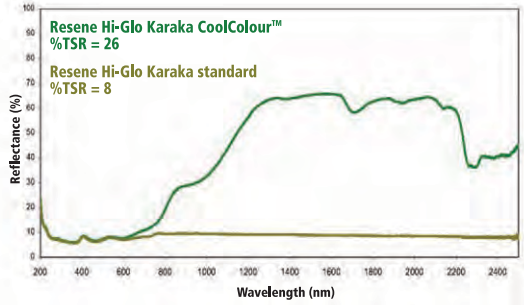
Traditionally Light Reflectance Values (LRV) have been used to define which colours are suitable for heat prone substrates, however visible Light Reflectance Values only measure a proportion of the light and ignore the effects of ultra-violet and infra-red light. Total Solar Reflectance (TSR) takes into account all three forms of light to give a better measure of the reflectance of colour. A Resene CoolColour™ uses pigments that reflect more of the sun's energy, resulting in the same visible Light Reflectance Value as the standard colour but a consistently higher Total Solar Reflectance.

The solar spectrum includes infra-red radiation that Resene CoolColour pigments are designed to reflect. Replacing the standard black pigment that absorbs all infra-red with a Resene CoolColour black pigment reduces the heat absorption. Some blues, greens and reds are transparent to infra-red radiation so are best used with a first coat of Resene Quick Dry or Resene Galvo-Prime to reflect infra-red that passes through these hues.

This effect can also be seen in plants. Most plants have leaves of very high chroma green. If those leaves reached the same temperature when



Reflectance spectral curves for Resene Karaka CoolColour™ versus Resene Karaka

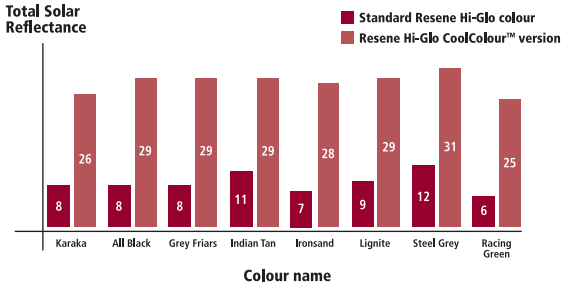


exposed to solar radiation as those of a similarly coloured paint they would shrivel and die. The fact they don't is because that pigment - chlorophyll - absorbs what it needs from the visible range to photosynthesise but reflects the infra-red range, keeping the plant cool.

Over the past decades, there have been vigorous efforts to create heat resistant pigments in the ceramics industry, as most tints break down at the very high temperatures under which ceramics are fired. Novel ways were discovered of doping refractory metal oxides of titanium, zirconium, chromium and so on, with other metal ions to produce a wide selection of high temperature colours. The behaviour of these mixed oxides were examined under infra-red and the results showed an ability to withstand a range of very high temperatures. Further refinements were made to maximise this for use in various commercial applications.

Using these findings Resene took the very popular roofing colour Karaka and incorporated into it these new infra-red reflecting pigments. Comparing the new blend against traditional coatings over a five minute standard Resene test revealed a 12˚C drop in temperature. The 12˚C difference can make a tremendous difference to the stresses exerted on

Total Solar Reflectance for Resene Hi-Glo CoolColour™ versus standard colours



the substrate and can have a telling effect on its stability and heat gain.

When it comes to roofs, having a darker shade in winter will not make much difference to how hot your roof - and home or building will get - as when it is cold they will be cold too, however in summer it will make a difference as to how hot your home or building will get by reflecting heat away from the building.

First developed for high gloss roof coatings, Resene CoolColour technology is now available in a range of paints and stains including Resene Lumbersider waterborne low sheen, Resene Sonyx 101 waterborne semi-gloss, Resene Hi-Glo waterborne gloss, Resene Summit Roof waterborne roof paint, Resene Enamacryl gloss waterborne enamel, Resene Lustacryl semi-gloss waterborne enamel, Resene SpaceCote Flat waterborne enamel, Resene X-200 weathertight membrane, Resene Walk-on, Resene AquaShield mineral effect, Resene Non-Skid Deck & Path, Resene Woodsman Decking Stain and Resene Waterborne Woodsman wood stain.

A change in tone or product may be required for some colours to achieve a Resene CoolColour effect. Resene CoolColour and standard variants of a specific colour use different pigment combinations by necessity to achieve a match to the same Resene master colour standard. This can cause slight colour differences depending on the degree and type of light, which naturally varies with the time of day.

Resene CoolColour technology works best in dark shades most prone to heat build-up, including popular colours such as Resene Nero, Resene Karaka and Resene Napa. A wide range of Resene CoolColour hues are now available - see colours marked with a CC on Resene colour charts or view Resene CoolColour options online, **www.resene.com/colour**.

Resene. Licensed products since 1996

Check with your Resene ColorShop or representative to see if a Resene CoolColour is right for your project.

Although it may be hard to believe, these two colours behave the same in test procedures. The test procedure involves fixing thermocouples onto the backs of these panels (ensuring a good thermal contact), shining an infra-red light onto the painted side of the panels and plotting the temperature rise of the panels on the thermocouples.

The grey panel is a standard coating. The black panel uses Resene CoolColour pigments. The black Resene CoolColour panel has the same infra-red (heat) absorption as the standard paint finish on the grey panel, demonstrating the reflective benefits of Resene CoolColour technology.

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System Guide for Painting & Staining Accoya®

Accoya® wood is based on an established chemical modification called "acetylation". For optimal paint system performance, like all conventional wood species, Accoya® wood requires application of a breathable paint system. This *summary guide* provides key recommendations for coating and staining Accoya®. Before painting refer to the full detailed Resene specification M01-01-20 for detailed instructions and procedures.

Guidance on the storage, design, processing, sealing, gluing and other requirements, please refer to the Accoya Wood Information Guide located in the download area http://www.accoya-timspec.co.nz and for more information, including the application of Resene systems on Accoya, please contact technical@timspec.co.nz

CLADDING – Painting

Factory Primer:	2 coats Resene True-Prime Beige*		
Topcoat/s[ǂ]:	2 coats Sonyx 101 Semi-Gloss Acrylic [ǂ]	Data Sheet:	D30

* applied by inline application prior to site delivery ǂ For a Low Sheen finish use Resene Lumbersider

JOINERY – Painting

Primer:	1 coat Resene Wood Primer	Data Sheet:	D30
Undercoat:	1 coat Resene Quick Dry Acrylic Primer Undercoat	Date Sheet:	D45
Topcoat/s[ǂ]:	2 coats Resene Enamacryl [ǂ]	Data Sheet:	D309

ǂ For a Semi-Gloss finish use Resene Lustacryl

CLADDING – Staining

1st Coat:	1 coat Resene Waterborne Woodsman	Data Sheet:	D57A
Topcoat/s:	1 coat Resene Waterborne Woodsman	Data Sheet:	D57A

* An additional 2nd top coat may be applied to offer more colour opacity / intensity and longer durability if desired.

DECKING – Staining

1st Coat:	1 coat Resene Woodsman Wood Oil Stain	Data Sheet:	D57
Topcoat:	1 coat Resene Woodsman Wood Oil Stain	Data Sheet:	D57

Important Notes:

1. Prior to coating ensure that Accoya® wood surface is clean, dry and dust free for optimal results.
2. The 1st Coat of any system should be applied to all four sides of the profile for best performance. This is best done by in-line machine application.
3. All exposed end grain (including all cuts, drilled holes and rebates) must be sealed with an additional coat of the 1st coat.
4. For film forming paint applications (paint) all sharp edges should be radiused to offer better coating coverage and performance.
5. All applications should be carried out to best trade practice for optimal results including drying of the coating at sufficient temperature and with sufficient time between layers.
6. Accoya cladding (weatherboards) must be factory primed with Resene True-Prime™
7. When using **Dark colours** use Resene CoolColour™ option in your topcoats coated over True-Prime™ Beige in-line factory applied primer.
8. The moisture content of the Accoya® wood, to be coated, should be dry (below 6% mc)
9. Non film forming coatings such as Woodsman stain have a similar maintenance interval on Accoya as on conventional timbers. This is typically every two summers.
10. If any isolated areas of tannin stain appear, on the painted timber, then spot seal these areas with Resene StainLock and then reapply the topcoats.

During preparation and painting refer to information contained within the Resene Product Data Sheets available at www.resene.co.nz & www.resene.com.au

July 2022

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RESENE DATA SHEET DIRECT LINKS

For all Data sheets, Safety Data Sheets (SDS) and Product Labels please use the following direct page links:

http://www.resene.co.nz/archspec/datasheets/data-sheets.htm

For specific direct links to Data Sheets please see below

Paints – Joinery

https://www.resene.co.nz/archspec/datasheets/d40-Wood-Primer.pdf

https://www.resene.co.nz/archspec/datasheets/d45-QuickDryPrimerUndercoat.pdf

https://www.resene.co.nz/archspec/datasheets/d309-Enamacryl-WB-Enamel.pdf

https://www.resene.co.nz/archspec/datasheets/d309C-Enamacryl-Cool-Colour.pdf

Semi-Gloss top coat option

https://www.resene.co.nz/archspec/datasheets/d310-Lustacryl-WB-Enamel.pdf

https://www.resene.co.nz/archspec/datasheets/d310C-Lustacryl-Cool-Colour.pdf

Paints – Cladding

http://www.resene.co.nz/archspec/datasheets/d45-QuickDryPrimerUndercoat.pdf

http://www.resene.co.nz/archspec/datasheets/d30C-Sonyx-Cool-Colour.pdf

http://www.resene.co.nz/archspec/datasheets/d30-Sonyx-101-Acrylic.pdf

Low Sheen top coat option

http://www.resene.co.nz/archspec/datasheets/d34-Lumbersider.pdf

http://www.resene.co.nz/archspec/datasheets/d34C-Lumbersider-CoolColour.pdf

True-Prime™

http://www.resene.co.nz/archspec/products/Niagara.htm

http://www.resene.co.nz/archspec/products/chile.htm

Please Note: True-Prime is a commercial product and does not come with a data sheet for Public usage.

Cladding – Water Based Woodsman Stain

http://www.resene.co.nz/archspec/datasheets/d57a-WB-Woodsman-Oil-Stain.pdf

http://www.resene.co.nz/archspec/datasheets/d57C-Woodsman-Cool-Colour.pdf

Decking – OIL based Woodsman Stain

http://www.resene.co.nz/archspec/datasheets/d57-Woodsman-Oil-Stain.pdf

Please Note - CoolColour™ is NOT available in solvent based stains.

CoolColour™

http://www.resene.co.nz/comn/whtsnew/cool_colours.htm

http://www.resene.co.nz/pdf/CoolColour.pdf

celebrating 70 colourful years

Resene Sonyx 101 CoolColour™

waterborne
semi-gloss

Resene Sonyx 101 CoolColour is a member of a new generation family of waterborne coatings optimised for superior toughness, durability and adhesion, combined with superb flowing good looks.

Resene CoolColour technology performs optimally on dark colours that are the most susceptible to heat build-up.

exterior

Physical properties

Vehicle type	(Aliphatic acrylates) 100% acrylic
Pigmentation	Titanium dioxide/extenders
Solvent	Water
Finish	Semi-gloss
Colour	Selected colours from the Resene Total Colour System
Dry time (minimum)	45 minutes at 18°C
Recoat time (minimum)	2 hours
Primer required	Yes, dependent on surface
Theoretical coverage	12 sq. metres per litre
Dry film thickness	38 microns at 12 sq. metres per litre
Usual no. of coats	2; some colours may require an additional coat
Abrasion resistance	Very good
Chemical resistance	Good
Heat resistance	Thermoplastic
Solvent resistance	Fair
Durability	Excellent
Thinning and clean up	Water
VOC	c. 59 grams per litre (see Resene VOC Summary)

Typical uses

- Block and brickwork
- Concrete
- Fibre cement
- G.R.C. panels
- Primed galvanised steel
- Primed timber
- Solid plaster

Performance and limitations

Performance

1. Reflects heat improving the life of paint finish and substrate and improving interior conditions inside the painted structure.
2. Ideal coating for exterior cementitious substrates.
3. Excellent intercoat adhesion.
4. Excellent adhesion to Resene primers - refer schedule overleaf.
5. Excellent durability in high U.V. environments.
6. An Environmental Choice approved product.

Limitations

1. Do not apply at temperatures below 10°C or when it is liable to drop below 10°C during the drying period.
2. Not designed for direct to metal applications.
3. Will not penetrate chalky and powdery surfaces.
4. Not normally used on opening sashes and doors (use Resene Lustacryl CoolColour - see Data Sheet D310C).

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

Sonyx 101 CoolColour™ waterborne semi-gloss

Surface preparation

Clean down thoroughly to remove all dirt, dust and loose material. Ensure surface is free from oil, grease, mould and release agents. Any timber that has been exposed to weather for more than one week requires thorough sanding of the surface or treatment with Resene TimberLock (see Data Sheet D48).

If moss and mould are present, treat with Resene Moss & Mould Killer (see Data Sheet D80). Waterblasting at 21,000 kps (3000 psi) is the best surface preparation method prior to painting weathered cementitious surfaces or galvanised steel.

Prime as per the following:
Exterior timber
Resene Wood Primer (see Data Sheet D40) then a coat of Resene Quick Dry (see Data Sheet D45) for optimal CoolColour effect.

Fibre board, particle board, Matai, Spotted Gum, Totara
Resene Quick Dry (see Data Sheet D45).

G.R.C, glossy concrete
Resene Quick Dry (see Data Sheet D45).

Leaking blockwork
Resene X-200 CoolColour (see Data Sheet D62C).

New galvanised steel, Zincalume
Resene Galvo-Prime (see Data Sheet D402).

Old galvanised steel, Zincalume
Resene Galvo One (see Data Sheet D41).

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, synthetic fibre roller, speed brush or spray. Prepare surface and prime as above. Apply two to three coats of Resene Sonyx 101 CoolColour allowing two hours between coats.

Precautions

1. Ensure correct primer and/or sealer is used.
2. Fill all nailholes and cracked timber after priming.
3. Galvanised steel and Zincalume must be primed before application of Resene Sonyx 101 CoolColour.

Sonyx 101 SDS

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Resene Sonyx 101

waterborne
semi-gloss

Resene Sonyx 101 is a member of a family of waterborne coatings optimised for superior toughness, durability and adhesion, combined with superb flowing good looks.

exterior/interior

Physical properties

Vehicle type	(Aliphatic acrylates) 100% acrylic
Pigmentation	Titanium dioxide/extenders
Solvent	Water
Finish	Semi-gloss
Colour	Selected Resene Total Colour System, including BS5252, Multi-Finish, Whites & Neutrals and The Range
Dry time (minimum)	45 minutes at 18°C
Recoat time (minimum)	2 hours
Primer required	Yes, dependent on surface
Theoretical coverage	12 sq. metres per litre
Dry film thickness	38 microns at 12 sq. metres per litre
Usual no. of coats	2; some colours may require an additional coat
Abrasion resistance	Very good
Chemical resistance	Good
Heat resistance	Thermoplastic
Solvent resistance	Fair
Durability	Excellent
Thinning and clean up	Water
VOC	c. 59 grams per litre (see Resene VOC Summary)

Typical uses

- Block and brickwork
- Concrete
- Fibre cement
- G.R.C. panels
- Primed galvanised steel
- Primed timber
- Solid plaster
- Wallboards

Performance and limitations

Performance

1. Ideal coating for exterior cementitious substrates.
2. Excellent intercoat adhesion.
3. Excellent adhesion to Resene primers - refer schedule overleaf.
4. Excellent durability in high U.V. environments. Performance may be further enhanced by overcoating with Resene Clearcoat UVS (see Data Sheet D502).
5. An Environmental Choice approved product.

Limitations

1. Do not apply at temperatures below 10°C or when it is liable to drop below 10°C during the drying period.
2. Not designed for direct to metal applications.
3. Will not penetrate chalky and powdery surfaces.
4. Not normally used on opening sashes and doors (use Resene Lustacryl - see Data Sheet D310).

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

Sonyx 101 waterborne semi-gloss

Surface preparation

Clean down thoroughly to remove all dirt, dust and loose material. Ensure surface is free from oil, grease, mould and release agents. Any timber that has been exposed to weather for more than one week requires thorough sanding of the surface or treatment with Resene TimberLock (see Data Sheet D48).

If moss and mould are present, treat with Resene Moss & Mould Killer (see Data Sheet D80). Waterblasting at 21,000 kps (3000 psi) is the best surface preparation method prior to painting weathered cementitious surfaces or galvanised steel.

Prime as per the following:
Exterior timber
Resene Wood Primer (see Data Sheet D40).

Fibre and particle board, Matai, Spotted Gum, Totara
Resene Quick Dry (see Data Sheet D45).

Galvanised steel, Zincalume
Resene Galvo One (see Data Sheet D41) or Resene Galvo-Prime (see Data Sheet D402).

G.R.C. panels, glossy concrete
Resene Waterborne Smooth Surface Sealer (see Data Sheet D47a).

Leaking blockwork
Resene X-200 (see Data Sheet D62).

Soft or absorbent surfaces
Resene Sureseal (see Data Sheet D42). Substrates include gypsum plaster, paperfaced plasterboard, plaster glass, powdery surfaces.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, synthetic fibre roller, speed brush or spray. Prepare surface and prime as above. Apply two to three coats of Resene Sonyx 101 allowing at least two hours between coats.

Precautions

1. Ensure correct primer and/or sealer is used.
2. Fill all nailholes and cracked timber after priming.
3. Galvanised steel and Zincalume must be primed before application of Resene Sonyx 101.

Sonyx 101 SDS

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Resene Lumbersider CoolColour™

waterborne
low sheen

Resene Lumbersider CoolColour is based on a tough 100% acrylic resin to ensure maximum durability in all exposed conditions. Imparts a natural low sheen look that is fully washable.

Resene CoolColour technology performs optimally on dark colours that are the most prone to heat build-up.

exterior

Physical properties

Vehicle type	100% acrylic
Pigmentation	Titanium dioxide/fillers
Solvent	Water
Finish	Low sheen
Colour	Selected colours from the Resene Total Colour System
Dry time (minimum)	45 minutes at 18°C
Recoat time (minimum)	2 hours
Primer required	Yes, dependent on surface
Theoretical coverage	12 sq. metres per litre
Dry film thickness	33 microns at 12 sq. metres per litre
Usual no. of coats	2; some colours may require an additional coat
Abrasion resistance	Very good
Chemical resistance	Good
Heat resistance	Thermoplastic
Solvent resistance	Good
Durability	Excellent
Thinning and clean up	Water.
VOC	c. 35 grams per litre (see Resene VOC Summary)

Typical uses

- Beams
- Block and brickwork
- Concrete and plaster
- Deckings
- Fibre and particle board
- Fibre cement
- Galvanised iron
- Repaints
- Roughcast/stucco
- Timber
- Weatherboards

Performance and limitations

Performance

1. Reflects heat improving the life of paint finish and substrate and improving interior conditions inside the painted structure.
2. Excellent adhesion to primed and natural substrates, timber, concrete and old paintwork.
3. Excellent as a roof coating where a low sheen finish is required.
4. May be used on surfaces that are to be used for the collection of drinking water.
5. An Environmental Choice approved product.

Limitations

1. Do not apply at temperatures below 10°C or when it is liable to drop below 10°C during the drying period.
2. Use Resene Wood Primer (see Data Sheet D40) or Resene TimberLock (see Data Sheet D48) for the first coat where the timber surface is showing signs of deterioration, particularly on deckings.
3. Disconnect roof downpipes until after the first shower of rain in order to flush away surplus non-toxic wetting agents before the surface is used for the collection of drinking water.
4. Areas coated with this product unmodified may not comply with New Zealand Building Code D1 3.3(d). Refer also to New Zealand Building Code D1 2.0 table 2.

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

Lumbersider CoolColour™ waterborne low sheen

Surface preparation

Clean down thoroughly to remove all dirt, dust and loose material. Ensure surface is free from oil, grease and mould. Any timber that has been exposed to weather for more than one week requires thorough sanding of the surface or treatment with Resene TimberLock (see Data Sheet D48).

If moss and mould are present, treat with Resene Moss & Mould Killer (see Data Sheet D80). Waterblasting at 21,000 kps (3000 psi) is the best surface preparation method prior to painting weathered cementitious surfaces or galvanised steel.

When painting new or old galvanised roofs, ensure the surface to be painted is thoroughly cleaned using Resene Roof and Metal Wash (see Data Sheet D88). Flush clean with freshwater. Consult Resene for technical advice on painting of old cementitious roof tiles.

Concrete

Use Resene Limelock (see Data Sheet D809) on fresh cementitious surfaces to trap any free lime and prevent the appearance of lime staining.

Timber

Where a staining type of timber exists an application of Resene Wood Primer (see Data Sheet D40) may be required.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, speed brush, synthetic fibre roller or spray. For optimum CoolColour performance use one coat of Resene Quick Dry or Resene Galvo-Prime depending on substrate before applying Resene Lumbersider CoolColour.

Concrete, etc

1. Seal where necessary with one coat of Resene Sureseal (see Data Sheet D42). Allow to dry for at least two hours. Apply one coat of Resene Quick Dry (see Data Sheet D45) and allow to dry.
2. Apply two coats Resene Lumbersider CoolColour allowing at least two hours between coats.

Galvanised steel, Zincalume

1. Apply one coat Resene Galvo-Prime (see Data Sheet D402) or Resene Galvo One (see Data Sheet D41). Resene Galvo-One may need to be overcoated in Resene Galvo-Prime (see Data Sheet D402) for optimal CoolColour effect depending on colour choice – refer to Resene.
2. Apply two coats Resene Lumbersider CoolColour allowing at least two hours between coats.

Timber

1. Apply one coat of Resene Quick Dry (see Data Sheet D45) and allow to dry.
2. Apply two coats Resene Lumbersider CoolColour allowing at least two hours between coats.

Precautions

1. Ensure correct primer and/or sealer is used.
2. Fill all nailholes and cracked timber after priming.
3. Galvanised steel and Zincalume must be primed before application of Resene Lumbersider CoolColour.

Resene Lumbersider is formulated to adhere to fresh timber surfaces. 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. A coat of solventborne Resene Wood Primer (see Data Sheet D40) will slow down the rate of drying and lessen the danger of warping.

Lumbersider SDS

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Resene Lumbersider

waterborne
low sheen

Resene Lumbersider is based on a tough 100% acrylic resin to ensure maximum durability in all exposed conditions. Imparts a natural low sheen look that is fully washable.

exterior/interior

Physical properties

Vehicle type	100% acrylic
Pigmentation	Titanium dioxide/fillers
Solvent	Water
Finish	Low sheen
Colour	Selected Resene Total Colour System, including BS5252, Multi-Finish, Whites & Neutrals and The Range
Dry time (minimum)	45 minutes at 18°C
Recoat time (minimum)	2 hours
Primer required	Yes, dependent on surface
Theoretical coverage	12 sq. metres per litre
Dry film thickness	33 microns at 12 sq. metres per litre
Usual no. of coats	2; some colours may require an additional coat
Abrasion resistance	Very good
Chemical resistance	Good
Heat resistance	Thermoplastic
Solvent resistance	Good
Durability	Excellent
Thinning and clean up	Water.
VOC	c. 35 grams per litre (see Resene VOC Summary)

Typical uses

- Beams
- Block and brickwork
- Concrete and plaster
- Deckings
- Fibre and particle board
- Fibre cement
- Galvanised iron
- Repaints
- Stucco/roughcast
- Timber
- Wallboards
- Wallpaper
- Weatherboards

Performance and limitations

Performance

1. Excellent adhesion to primed and natural substrates, timber, concrete and old paintwork.
2. Excellent as a roof coating where a low sheen finish is required.
3. May be used on surfaces that are to be used for the collection of drinking water.
4. Low sheen, highly scrubbable wall paint.
5. An Environmental Choice approved product.

Limitations

1. Do not apply at temperatures below 10°C or when it is liable to drop below 10°C during the drying period.
2. Use Resene Wood Primer (see Data Sheet D40) or Resene TimberLock (see Data Sheet D48) for the first coat where the timber surface is showing signs of deterioration, particularly on deckings.
3. Disconnect roof downpipes until after the first shower of rain in order to flush away surplus non-toxic wetting agents before the surface is used for the collection of drinking water.
4. Areas coated with this product unmodified may not comply with New Zealand Building Code D1 3.3(d). Refer also to New Zealand Building Code D1 2.0 table 2.

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

Lumbersider waterborne low sheen

Surface preparation

Clean down thoroughly to remove all dirt, dust and loose material. Ensure surface is free from oil, grease and mould. Any timber that has been exposed to weather for more than one week requires thorough sanding of the surface or treatment with Resene TimberLock (see Data Sheet D48).

If moss and mould are present, treat with Resene Moss & Mould Killer (see Data Sheet D80). Waterblasting at 21,000 kps (3000 psi) is the best surface preparation method prior to painting weathered cementitious surfaces or galvanised steel.

When painting new or old galvanised roofs, ensure the surface to be painted is thoroughly cleaned using Resene Roof and Metal Wash (see Data Sheet D88). Flush clean with freshwater. Consult Resene for technical advice on painting of old cementitious roof tiles.

Concrete

Use Resene Limelock (see Data Sheet D809) on fresh cementitious surfaces to trap any free lime and prevent the appearance of lime staining.

Timber

Where a staining type of timber exists an application of Resene Wood Primer (see Data Sheet D40) may be required.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, speed brush, synthetic fibre roller or spray.

Concrete, wallboards, etc

1. Seal where necessary with one coat of Resene Sureseal (see Data Sheet D42). Allow to dry for a minimum of two hours.
2. Apply two coats Resene Lumbersider allowing at least two hours between coats.

Galvanised steel, Zincalume

1. Apply one coat Resene Galvo-Prime (see Data Sheet D402) or Resene Galvo One (see Data Sheet D41).
2. Apply two coats Resene Lumbersider allowing at least two hours between coats.

Timber

1. Apply two coats Resene Lumbersider allowing at least two hours between coats.
2. Where a primer is required, apply one full coat and allow 24 hours to dry. Then proceed as for (1) above.

Precautions

1. Ensure correct primer and/or sealer is used.
2. Fill all nailholes and cracked timber after priming.
3. Galvanised steel and Zincalume must be primed before application of Resene Lumbersider.

Resene Lumbersider is formulated to adhere to fresh timber surfaces. Dark colours may cause the rapid drying of damp timber with the ensuing danger of warping. A coat of solventborne Resene Wood Primer (see Data Sheet D40) will slow down the rate of drying and lessen the danger of warping.

Lumbersider SDS

In Australia
PO Box 924, Beenleigh, Qld 4207
Call 1800 738 383, visit www.resene.com.au
or email advice@resene.com.au

Resene
the paint the professionals use

In New Zealand
PO Box 38242, Wellington Mail Centre, Lower Hutt 5045
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or email advice@resene.co.nz

Resene Quick Dry

waterborne primer undercoat

Resene Quick Dry waterborne primer undercoat provides long-term flexibility over unstable substrates coupled with exceptional durability even when left uncoated for prolonged periods. The latest formulation has enhanced flow and sanding characteristics for maximum benefit under waterborne enamels, such as Resene Enamacryl (see Data Sheet D309) and Resene Lustacryl (see Data Sheet D310).

exterior/interior

Physical properties

Vehicle type	100% acrylic
Pigmentation	Titanium dioxide/fillers
Solvent	Water
Finish	Low sheen
Colour	White
Dry time (minimum)	20 minutes at 18°C
Recoat time (minimum)	2 hours
Sealer required	See precautions
Theoretical coverage	12.5 sq. metres per litre
Dry film thickness	35 microns at 12.5 sq. metres per litre
Usual no. of coats	1-2
Chemical resistance	Good
Heat resistance	Thermoplastic
Solvent resistance	Good
Sanding properties	Good
Durability	Excellent
Thinning and clean up	Water
VOC	c. 34 grams per litre (see Resene VOC Summary)

Typical uses

- Architraves
- Block and brickwork
- Cement plaster
- Cloth and woven wallcoverings
- Particle board
- Repaint old work
- Timber (including Matai, Spotted Gum and Totara)
- Wallboards
- Wallpaper

Performance and limitations

Performance

1. Excellent adhesion to substrates including old paint.
2. Outstanding durability maintaining flexibility for the life of the system.
3. Excellent flow and sanding properties.
4. Successful primer/undercoat for HDF and MDF. Resene Quick Dry seals waxes used in the board and makes ready for any subsequent paint system.
5. Designed with a low sheen that allows exceptional enamel hold-out.
6. An ideal primer for Matai, Spotted Gum and Totara.
7. An Environmental Choice approved product.

Limitations

1. Do not apply at temperatures below 10°C or when it is liable to drop below 10°C during the drying period.
2. Not designed as a first coat over metal surfaces or weak powdery surfaces.

Exposed bare or cracked timber usually accumulates windblown salt. Before using a totally waterborne system, this salt must be removed by prolonged washing with freshwater. Alternatively, use a solventborne undercoat.

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

Quick Dry waterborne primer undercoat

Surface preparation

Sand timber surfaces smooth. Clean down thoroughly to remove all dirt, dust and loose material. Any timber that has been exposed to weather for more than one week requires thorough sanding of the surface or treatment with Resene TimberLock (see Data Sheet D48). Resene TimberLock is strongly recommended for pre-treating new Cedar. Consult Resene for technical advice for coating severely weathered timber.

If moss and mould are present, treat with Resene Moss & Mould Killer (see Data Sheet D80). Waterblasting at 21,000 kps (3000 psi) is the best surface preparation method prior to painting of weathered cementitious surfaces or galvanised steel.

Efflorescence on masonry must be treated (see Data Sheet D83).

Existing gloss enamel painted surfaces must be thoroughly sanded to provide a mechanical key for subsequent coats.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, speed brush, synthetic fibre roller or spray. Spray application is generally not preferred for the first coat.

Apply one to two coats of Resene Quick Dry allowing two to four hours between coats. Lightly sand between coats. For porous surfaces, it may be desirable to thin the first coat with up to 10% clean water.

New paperfaced plasterboard, solid and fibrous plaster and old powdery cementitious surfaces may be sealed with either Resene Sureseal (see Data Sheet D42) or Resene Broadwall Waterborne Wallboard Sealer (see Data Sheet D403). Consult Resene.

Precautions

1. Fill all nailholes and cracked timber after priming.
2. Not recommended for use where severe water staining exists.
3. Resene Wood Primer (see Data Sheet D40) is recommended for Cedar to hold back staining when light colours are used.

Quick Dry SDS

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or email advice@resene.co.nz

Resene Waterborne Woodsman

penetrating oil stain

Resene Waterborne Woodsman is a waterborne woodstain matching the needs of timber to the desire to achieve the most natural appearance possible.

exterior

Typical uses

- Beams
- Fences
- Outdoor furniture
- Plywood and profiled sheets
- Timber - dressed and rough sawn
- Weatherboards

Physical properties

Vehicle type	Oil-modified acrylic
Pigmentation	Natural coloured oxides and limed colours
Solvent	Water
Finish	Fully penetrating over bare timber
Colour	Standard colours from the Resene Exterior timber stains colour chart
Dry time (minimum)	45 minutes at 18°C
Recoat time (minimum)	2 hours at 18°C
Primer required	No
Theoretical coverage	Dependent on surface
Usual no. of coats	2 (new work - see limitations); 1-2 (old work)
Thinning and clean up	Do not thin; clean up with water when wet; mineral turps when dry
VOC	c. 80 grams per litre (see Resene VOC Summary)

Performance and limitations

Performance

1. Provides a genuine rustic look.
2. Very easy application.
3. Requires minimum surface preparation.
4. Contains powerful fungicides for mould resistance.
5. An Environmental Choice approved product.

Limitations

1. Will not kill existing mould. Use Resene Moss & Mould Killer (see Data Sheet D80).
2. Will not prevent checking of plywood.
3. Will require maintenance after two summers.
4. New dressed or dense timber may need a third coat after three months.

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Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

Waterborne Woodsman penetrating oil stain

Surface preparation

Existing stains (non film-forming)

Remove all the weakly adhering coating by sanding. Treat with Resene Moss & Mould Killer (see Data Sheet D80).

Exposed timber (greater than one week)

Remove any gross contamination and semi-detached cellulose fibres. Treat with Resene Moss & Mould Killer (see Data Sheet D80). Wash down with Resene Timber and Deck Wash (see Data Sheet D813), rinse with fresh water and allow to dry.

New timber

Ensure surface is dry and free from dirt, dust and loose material.

Caution

Sanding dusts from some hardwoods are considered carcinogenic and all old timber sanding dusts should be considered potentially harmful. Always wear an efficient dust mask.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, speedbrush or roller. Saturate surface with Resene Waterborne Woodsman. During application stir the contents of the container frequently to ensure even distribution of colour. Aim to achieve the targeted coverage for the substrate as outlined below.

Typical coverage

Badly weathered timber

First coat 3-4 square metres per litre.
Second coat 5-7 square metres per litre.

Dressed timber

First coat 10-12 square metres per litre.
Second coat 12-14 square metres per litre.
Apply a third coat 12-14 square metres per litre after about three to six months.

Rough sawn timber

First coat 4-6 square metres per litre.
Second coat 9-11 square metres per litre.

Precautions

1. Will not penetrate through existing coatings or very hard latewood bands. For best results wipe excess Resene Waterborne Woodsman off with a dry, absorbent, lint-free cloth rubbing along the grain.
2. Contains powerful fungicides. Avoid skin contact. If any skin contact occurs, wash skin thoroughly with soap and water immediately. Do not scrub the skin.
3. Avoid breathing vapour - use with adequate ventilation.

Waterborne Woodsman SDS

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Resene Waterborne Woodsman CoolColour™

penetrating oil stain

Resene Waterborne Woodsman CoolColour is a waterborne woodstain matching the needs of timber to the desire to achieve the most natural appearance possible.

Resene CoolColour technology performs optimally on dark colours that are the most prone to heat build-up.

exterior

Physical properties

Vehicle type	Oil-modified acrylic
Pigmentation	Natural coloured oxides and limed colours
Solvent	Water
Finish	Fully penetrating over bare timber
Colour	Selected colours from the Resene Exterior timber stains colour chart
Dry time (minimum)	45 minutes at 18°C
Recoat time (minimum)	2 hours at 18°C
Primer required	No
Theoretical coverage	Dependent on surface
Usual no. of coats	2 (new work - see limitations); 1-2 (old work)
Thinning and clean up	Do not thin; clean up with water when wet; mineral turps when dry
VOC	c. 80 grams per litre (see Resene VOC Summary)

Typical uses

- Beams
- Fences
- Outdoor furniture
- Plywood and profiled sheets
- Timber - dressed and rough sawn
- Weatherboards

Performance and limitations

Performance

1. Reflects heat improving the life of the woodstain finish and substrate and improving interior conditions inside the painted structure.
2. Provides a genuine rustic look.
3. Very easy application.
4. Requires minimum surface preparation.
5. Contains powerful fungicides for mould resistance.
6. An Environmental Choice approved product.

Limitations

1. Will not kill existing mould. Use Resene Moss & Mould Killer (see Data Sheet D80).
2. Will not prevent checking of plywood.
3. Will require maintenance after two summers.
4. New dressed or dense timber may need a third coat after three months.

Please ensure the current Data Sheet and Safety Data Sheet are consulted prior to specification or application of Resene products. View Data Sheets online at www.resene.com/datasheets. If in doubt contact Resene.

WB Woodsman CoolColour™ penetrating oil stain

Surface preparation

Existing stains (non-film forming)
Remove all the weakly adhering coating by sanding. Treat with Resene Moss & Mould Killer (see Data Sheet D80).

Exposed timber (greater than one week)
Remove any gross contamination and semi-detached cellulose fibres. Treat with Resene Moss & Mould Killer (see Data Sheet D80). Wash down with Resene Timber and Deck Wash (see Data Sheet D813), rinse with fresh water and allow to dry.

New timber
Ensure surface is dry and free from dirt, dust and loose material.

Caution
Sanding dusts from some hardwoods are considered carcinogenic, and all old timber sanding dusts should be considered potentially harmful. Always wear an efficient dust mask.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, speedbrush or roller. Saturate surface with Resene Waterborne Woodsman. During application stir the contents of the container frequently to ensure even distribution of colour. Aim to achieve the targeted coverage for the substrate as outlined below.

Typical coverage

Badly weathered timber
First coat 3-4 square metres per litre.
Second coat 5-7 square metres per litre.

Dressed timber
First coat 10-12 square metres per litre.
Second coat 12-14 square metres per litre.
Apply a third coat 12-14 square metres per litre after about 3-6 months.

Rough sawn timber
First coat 4-6 square metres per litre.
Second coat 9-11 square metres per litre.

Precautions

1. Will not penetrate through existing coatings or very hard latewood bands. For best results wipe excess Resene Waterborne Woodsman CoolColour off with a dry, absorbent, lint-free cloth rubbing along the grain.
2. Contains powerful fungicides. Avoid skin contact. If any skin contact occurs, wash skin thoroughly with soap and water immediately. Do not scrub the skin.
3. Avoid breathing vapour - use with adequate ventilation.

Waterborne Woodsman SDS

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Resene Woodsman Wood Oil Stain

Resene Woodsman Wood Oil Stain for exterior timber is a penetrating solventborne oil stain matching the needs of timber with your desire to achieve the most natural appearance possible.

exterior

Typical uses

- Beams
- Fences
- Garden furniture
- Plywood and profiled sheets
- Timber - dressed and rough sawn
- Weatherboards

Physical properties

Vehicle type	Solventborne
Pigmentation	Natural coloured oxides
Solvent	Hydrocarbon/ester
Finish	Fully penetrating
Colour	Selection of standard colours from the Resene Exterior timber stains colour chart
Dry time (minimum)	24 hours
Recoat time (minimum)	24 hours
Primer required	No
Theoretical coverage	Dependent on surface
Usual no. of coats	2 (new work); 1-2 (old work)
Thinning and clean up	Do not thin; clean up with mineral turps
VOC	Greater than 557 grams per litre (see Resene VOC Summary)

Performance and limitations

Performance

1. Provides a genuine rustic look.
2. Very easy application.
3. Requires minimum surface preparation.
4. Contains powerful fungicides for mould resistance. Avoid contact with plants.

Limitations

1. Will not kill existing mould. Use Resene Moss & Mould Killer (see Data Sheet D80).
2. Will not penetrate through existing coatings. Such areas will need excess wiping off.
3. Will not prevent checking of plywood.
4. Will require maintenance after two summers.
5. Areas coated with this product unmodified may not comply with New Zealand Building Code D1 3.3(d). Refer also to New Zealand Building Code D1 2.0 table 2.

Woodsman Wood Oil Stain

Surface preparation

Existing stains

Remove all the weakly adhering coating by sanding. Treat with Resene Moss & Mould Killer (see Data Sheet D80).

Exposed timber (greater than one week)

Remove any gross contamination and semi-detached cellulose fibres. Treat with Resene Moss & Mould Killer (see Data Sheet D80).

New timber

Ensure surface is dry and free from dirt, dust and loose material.

Caution

Sanding dusts from some hardwoods are considered carcinogenic and all old timber sanding dusts should be considered potentially harmful. Always wear an efficient dust mask.

Sanding dust from old lead or chromate based paints or old building materials containing asbestos may be injurious to the health if inhaled or ingested. Seek expert advice if the presence of these materials is suspected.

Application

Apply by brush, speedbrush or roller. Saturate surface with Resene Woodsman wood oil stain. During application stir the contents of the container frequently to ensure even distribution of colour. Aim to achieve the targeted coverage for the substrate as outlined below.

Typical coverage

Badly weathered timber

First coat 3-4 square metres per litre.
Second coat 5-7 square metres per litre.

Dressed timber

First coat 10-12 square metres per litre.
Second coat 12-14 square metres per litre.
Apply a third coat 12-14 square metres per litre after about three to six months.

Rough sawn timber

First coat 4-6 square metres per litre.
Second coat 9-11 square metres per litre.

Precautions

1. Will not penetrate through existing coatings or very hard latewood bands. For best results wipe excess Resene Woodsman wood oil stain off with a dry, absorbent, lint-free cloth rubbing along the grain.
2. Contains powerful fungicides. Avoid skin contact. If any skin contact occurs, wash skin thoroughly with soap and water immediately. Do not scrub the skin.
3. FLAMMABLE - Keep away from heat and open flame. Keep closed when not in use.
4. Avoid breathing vapour - use with adequate ventilation.

Woodsman Wood Oil Stain SDS

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RESENE TRUE- PRIME

Resene Paints Ltd

Version No: **1.2**
Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: **3**

Issue Date: **18/11/2015**
Print Date: **18/11/2015**
Initial Date: **18/11/2015**
L.GHS.NZL.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	RESENE TRUE- PRIME
Synonyms	Incl Pacific Blue, Beige
Proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	9228, 9229

Details of the supplier of the safety data sheet

Registered company name	Resene Paints Ltd
Address	32-50 Vogel Street Naenae 5011 Wellington New Zealand
Telephone	+64 4 577 0500
Fax	+64 4 577 3327
Website	www.resene.co.nz
Email	advice@resene.co.nz

Emergency telephone number

Association / Organisation	NZ POISONS (24hr 7 days)
Emergency telephone numbers	0800 764 766
Other emergency telephone numbers	Not Available

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
+800 2436 2255	+612 9186 1132	Not Available

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

GHS Classification [1]	Skin Corrosion/Irritation Category 3, Aspiration Hazard Category 1, Reproductive Toxicity Category 2, STOT - SE Category 2, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3, Flammable Liquid Category 3
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*
Determined by Chemwatch using GHS/HSNO criteria	9.1C, 6.1E (aspiration), 6.3B, 6.9B, 9.1D, 6.8B, 3.1C

Label elements

GHS label elements	
SIGNAL WORD	DANGER

Hazard statement(s)

Continued...

H316	Causes mild skin irritation
H304	May be fatal if swallowed and enters airways
H361	Suspected of damaging fertility or the unborn child
H371	May cause damage to organs
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects
H226	Flammable liquid and vapour

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.

Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
96-29-7	<0.1	methyl ethyl ketoxime
8052-41-3.	0.1-1	naphtha petroleum, light, hydrodesulfurised
64742-82-1.	10-20	naphtha petroleum, heavy, hydrodesulfurised
64742-88-7	10-20	solvent naphtha petroleum, medium aliphatic
Not Available	1-5	trimethyl benzene
64742-95-6	1-10	naphtha petroleum, light aromatic solvent

SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ If swallowed do **NOT** induce vomiting. ▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▸ Observe the patient carefully. ▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▸ Seek medical advice. ▸ Avoid giving milk or oils. ▸ Avoid giving alcohol. ▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Continued...

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Foam.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters

Fire Fighting	▸ Alert Fire Brigade and tell them location and nature of hazard.
Fire/Explosion Hazard	▸ Liquid and vapour are flammable. Combustion products include; carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	▸ Remove all ignition sources.
Major Spills	Chemical Class: aromatic hydrocarbons For release onto land: recommended sorbents listed in order of priority. ▸ Clear area of personnel and move upwind.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▸ Containers, even those that have been emptied, may contain explosive vapours. ▸ Electrostatic discharge may be generated during pumping - this may result in fire. ▸ Avoid all personal contact, including inhalation.
Other information	▸ Store in original containers in approved flammable liquid storage area.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ Packing as supplied by manufacturer. ▸ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type.
Storage incompatibility	Toluene: ▸ reacts violently with strong oxidisers, bromine, bromine trifluoride, chlorine, hydrochloric acid/ sulfuric acid mixture, 1,3-dichloro-5,5-dimethyl-2,4-imidazolidindione, dinitrogen tetraoxide, fluorine, concentrated nitric acid, nitrogen dioxide, silver chloride, sulfur dichloride, uranium fluoride, vinyl acetate ▸ forms explosive mixtures with strong acids, strong oxidisers, silver perchlorate, tetranitromethane ▸ is incompatible with bis-toluenediazo oxide ▸ attacks some plastics, rubber and coatings ▸ may generate electrostatic charges, due to low conductivity, on flow or agitation. Low molecular weight alkanes: ▸ May react violently with strong oxidisers, chlorine, chlorine dioxide, dioxygenyl tetrafluoroborate. For alkyl aromatics: The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. ▸ Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	naphtha petroleum, light, hydrodesulfurised	White spirits (Stoddard solvent)	525 mg/m3 / 100 ppm	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	naphtha petroleum, heavy, hydrodesulfurised	White spirits (Stoddard solvent)	525 mg/m3 / 100 ppm	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
methyl ethyl ketoxime	Butanone oxime; (Ethyl methyl ketoxime)	10 ppm	10 ppm	52 ppm
naphtha petroleum, light, hydrodesulfurised	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	100 ppm	350 ppm	29500 ppm

Continued...

naphtha petroleum, heavy, hydrodesulfurised	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	100 ppm	350 ppm	29500 ppm
solvent naphtha petroleum, medium aliphatic	Solvent naphtha, petroleum, medium aliphatic; (Mineral spirits, naphtha)	0.32 mg/m3	3.5 mg/m3	21 mg/m3
naphtha petroleum, light aromatic solvent	Aromatic hydrocarbon solvents; (High flash naphtha distillates; Solvent naphtha (petroleum), light aromatic)	3.1 ppm	34 ppm	410 ppm

Ingredient	Original IDLH	Revised IDLH
methyl ethyl ketoxime	Not Available	Not Available
naphtha petroleum, light, hydrodesulfurised	29,500 mg/m3	20,000 mg/m3
naphtha petroleum, heavy, hydrodesulfurised	29,500 mg/m3	20,000 mg/m3
solvent naphtha petroleum, medium aliphatic	Not Available	Not Available
trimethyl benzene	Not Available	Not Available
naphtha petroleum, light aromatic solvent	Not Available	Not Available

MATERIAL DATA

For methyl ethyl ketoxime (MEKO)
CEL TWA: 10 ppm, 36 mg/m3 (compare WEEL-TWA)
(CEL = Chemwatch Exposure Limit)
OEL-TWA: 0.28 ppm, 1 mg/m3 ORICA Australia quoting DSM Chemicals
Saturated vapour concentration: 1395 ppm at 20 deg.
for benzene
Odour Threshold Value: 34 ppm (detection), 97 ppm (recognition)
NOTE: Detector tubes for benzene, measuring in excess of 0.5 ppm, are commercially available.
For trimethyl benzene as mixed isomers (of unstated proportions)
Odour Threshold Value: 2.4 ppm (detection)
Use care in interpreting effects as a single isomer or other isomer mix.

Exposed individuals are **NOT** reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.
For cumene:
Odour Threshold Value: 0.008-0.132 ppm (detection), 0.047 ppm (recognition)
Exposure at or below the TLV-TWA is thought to prevent induction of narcosis.
NOTE M: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.005% w/w benzo[a]pyrene (EINECS No 200-028-5).
NOTE P: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.01% w/w benzene (EINECS No 200-753-7).

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
Personal protection	
Eye and face protection	▸ Safety glasses with side shields ▸ Chemical goggles.
Skin protection	See Hand protection below
Hands/feet protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. ▸ Wear chemical protective gloves, e.g. PVC.
Body protection	See Other protection below
Other protection	▸ Overalls. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
RESENE TRUE- PRIME

Material	CPI
NITRILE	C

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise

Respiratory protection

Type A-P Filter of sufficient capacity.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	A-AUS / Class 1 P2	-	A-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	A-2 P2	A-PAPR-2 P2
up to 50 x ES	-	A-3 P2	-
50+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand
^ - Full-face
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen

Continued...

be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Coloured thin liquid with strong solvent odour

Physical state	Liquid	**Relative density (Water = 1)**	1.2-1.3
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	250
pH (as supplied)	Not Available	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	210-250
Initial boiling point and boiling range (°C)	145	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	31	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Flammable.	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	6.3	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	0.4	**Volatile Component (%vol)**	58
Vapour pressure (kPa)	4.5	**Gas group**	Not Available
Solubility in water (g/L)	Immiscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	4.4	**VOC g/L**	460

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Unstable in the presence of incompatible materials.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Inhalation of vapours may cause drowsiness and dizziness. The acute toxicity of inhaled alkylbenzenes is best described by central nervous system depression. Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. A significant number of individuals exposed to mixed trimethylbenzenes complained of nervousness, tension, anxiety and asthmatic bronchitis.
Ingestion	Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Accidental ingestion of the material may be damaging to the health of the individual. Chronic inhalation or skin exposure to n-hexane may cause peripheral neuropathy, which is damage to nerve ends in extremities, e.g. fingers, with loss of sensation and characteristic thickening.
Skin Contact	The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	There is sufficient evidence to provide a strong presumption that human exposure to the material may result in impaired fertility on the basis of: - clear evidence in animal studies of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary non-specific consequence of other toxic effects. There is sufficient evidence to provide a strong presumption that human exposure to the material may result in developmental toxicity, generally on the basis of:

Continued...

	- clear results in appropriate animal studies where effects have been observed in the absence of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not secondary non-specific consequences of the other toxic effects. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney.

RESENE TRUE- PRIME

TOXICITY	IRRITATION
Not Available	Not Available

methyl ethyl ketoxime

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >184<2 mg/kg>[1]	Not Available
Inhalation (rat) LC50: 20 mg/l/4h **[2]	
Oral (rat) LD50: >900 mg/kg[1]	

naphtha petroleum, light, hydrodesulfurised

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >1900 mg/kg[1]	Not Available
Inhalation (rat) LC50: >1400 ppm/8H[2]	
Oral (rat) LD50: >4500 mg/kg[1]	

naphtha petroleum, heavy, hydrodesulfurised

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >1900 mg/kg[1]	Not Available
Inhalation (rat) LC50: >1400 ppm/8H[2]	
Oral (rat) LD50: >4500 mg/kg[1]	

solvent naphtha petroleum, medium aliphatic

TOXICITY	IRRITATION
dermal (rat) LD50: 28000 mg/kg*n[2]	[CCINFO]
Oral (rat) LD50: >19650 mg/kgd[2]	Nil reported

naphtha petroleum, light aromatic solvent

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >1900 mg/kg[1]	Nil reported
Inhalation (rat) LC50: >3670 ppm/8 h *[2]	
Oral (rat) LD50: >4500 mg/kg[1]	

Legend: *1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

Acute Toxicity	⊘	**Carcinogenicity**	⊘
Skin Irritation/Corrosion	✔	**Reproductivity**	✔
Serious Eye Damage/Irritation	⊘	**STOT - Single Exposure**	✔
Respiratory or Skin sensitisation	⊘	**STOT - Repeated Exposure**	⊘
Mutagenicity	⊘	**Aspiration Hazard**	✔

Legend: ✘ *– Data available but does not fill the criteria for classification*
✔ *– Data required to make classification available*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
methyl ethyl ketoxime	LC50	96	Fish	37.890mg/L	3
methyl ethyl ketoxime	EC50	48	Crustacea	ca.201mg/L	2
methyl ethyl ketoxime	EC50	96	Algae or other aquatic plants	4.557mg/L	3
methyl ethyl ketoxime	EC50	72	Algae or other aquatic plants	ca.6.09mg/L	2
methyl ethyl ketoxime	NOEC	72	Algae or other aquatic plants	ca.1.02mg/L	2

Continued...

naphtha petroleum, light, hydrodesulfurised	EC50	96	Algae or other aquatic plants	64mg/L	2
naphtha petroleum, heavy, hydrodesulfurised	EC50	96	Algae or other aquatic plants	64mg/L	2
solvent naphtha petroleum, medium aliphatic	EC50	48	Crustacea	>100mg/L	1
solvent naphtha petroleum, medium aliphatic	EC50	96	Algae or other aquatic plants	=450mg/L	1
naphtha petroleum, light aromatic solvent	EC50	48	Crustacea	=6.14mg/L	1
naphtha petroleum, light aromatic solvent	EC50	72	Algae or other aquatic plants	3.29mg/L	1
naphtha petroleum, light aromatic solvent	EC10	72	Algae or other aquatic plants	1.13mg/L	1
naphtha petroleum, light aromatic solvent	NOEC	72	Algae or other aquatic plants	=1mg/L	1
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.
When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water.
For 1,2,4-trimethylbenzene:
Half-life (hr) air : 0.48-16
Half-life (hr) H2O surface water : 0.24-672
Half-life (hr) H2O ground : 336-1344
Half-life (hr) soil : 168-672
Henry's Pa m3 /mol: 385-627
Bioaccumulation : not significant
1,2,4-Trimethylbenzene is a volatile organic compound (VOC) substance.
Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus.
For C9 aromatics (typically trimethylbenzene - TMBs)
Chemicals in this category possess properties indicating a hazard for the environment (acute toxicity for fish, invertebrates, and algae from 1 to 10 mg/L).
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
methyl ethyl ketoxime	LOW	LOW
trimethyl benzene	LOW (Half-life = 56 days)	LOW (Half-life = 0.67 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
methyl ethyl ketoxime	LOW (BCF = 6)
trimethyl benzene	LOW (BCF = 275)

Mobility in soil

Ingredient	Mobility
methyl ethyl ketoxime	LOW (KOC = 130.8)
trimethyl benzene	LOW (KOC = 717.6)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	▸ Containers may still present a chemical hazard/ danger when empty. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ Recycle wherever possible.

Ensure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO

Continued...

HAZCHEM	•3Y

Land transport (UN)

UN number	1263
Packing group	III
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Environmental hazard	No relevant data
Transport hazard class(es)	Class: 3 Subrisk: Not Applicable
Special precautions for user	Special provisions: 163;223;367 Limited quantity: 5 L

Air transport (ICAO-IATA / DGR)

UN number	1263
Packing group	III
UN proper shipping name	Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds)
Environmental hazard	No relevant data
Transport hazard class(es)	ICAO/IATA Class: 3 ICAO / IATA Subrisk: Not Applicable ERG Code: 3L
Special precautions for user	Special provisions: A3 A72 A192 Cargo Only Packing Instructions: 366 Cargo Only Maximum Qty / Pack: 220 L Passenger and Cargo Packing Instructions: 355 Passenger and Cargo Maximum Qty / Pack: 60 L Passenger and Cargo Limited Quantity Packing Instructions: Y344 Passenger and Cargo Limited Maximum Qty / Pack: 10 L

Sea transport (IMDG-Code / GGVSee)

UN number	1263
Packing group	III
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Environmental hazard	Not Applicable
Transport hazard class(es)	IMDG Class: 3 IMDG Subrisk: Not Applicable
Special precautions for user	EMS Number: F-E, S-E Special provisions: 163 223 367 955 Limited Quantities: 5 L

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	methyl ethyl ketoxime	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	naphtha petroleum, light, hydrodesulfurised	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	naphtha petroleum, heavy, hydrodesulfurised	Y

Continued...

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	naphtha petroleum, light aromatic solvent	Y

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002662	Surface Coatings and Colourants (Flammable) Group Standard 2006

METHYL ETHYL KETOXIME(96-29-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Inventory of Chemicals (NZIoC)

NAPHTHA PETROLEUM, LIGHT, HYDRODESULFURISED(8052-41-3.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED(64742-82-1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC(64742-88-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)

NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT(64742-95-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

New Zealand Inventory of Chemicals (NZIoC)

Location Test Certificate

Subject to Regulation 55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations, a location test certificate is required when quantity greater than or equal to those indicated below are present.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
3.1C	500 L in containers greater than 5 L 1500 L in containers up to and including 5 L	250 L 250 L

Approved Handler

Subject to Regulation 56 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations and Regulation 9 of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations, the substance must be under the personal control of an Approved Handler when present in a quantity greater than or equal to those indicated below.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (methyl ethyl ketoxime; naphtha petroleum, light aromatic solvent; naphtha petroleum, light, hydrodesulfurised; solvent naphtha petroleum, medium aliphatic; naphtha petroleum, heavy, hydrodesulfurised)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (naphtha petroleum, light, hydrodesulfurised; solvent naphtha petroleum, medium aliphatic; naphtha petroleum, heavy, hydrodesulfurised)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No

Continued...

naphtha petroleum, light, hydrodesulfurised	64742-73-0., 8052-41-3.
naphtha petroleum, heavy, hydrodesulfurised	64742-82-1., 8052-41-3.
naphtha petroleum, light aromatic solvent	25550-14-5, 64742-95-6

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

Definitions and abbreviations

PC－TWA: Permissible Concentration-Time Weighted Average
PC－STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

Resene

the paint the professionals use

Coatings Specification

Contract:	**EXTERIOR PAINTING & STAINING**
Building:	**ACCOYA WEATHERBOARDS, DECKING & JOINERY**
Location:	**NEW ZEALAND & AUSTRALIA**
Owner / Agent	**ACCSYS Group**
Specification:	**M01-01-20** **amended** **Date: 01/01/20**
Writer:	**John Kilby**
	Replaces Specification M17-07-16, M98-10-14 & A107-08-12

SCOPE
The work involved and intended in this Contract to be carried out at the location detailed above comprises the following:

Prepare surfaces and apply Resene paint in accordance with this specification.

GUARANTEE
Disclaimer: Resene Paints will not accept any liability for loss of adhesion from blistering or discolouration of the paint system due to water ingress into the Accoya timber.

The Contractor guarantees this work under normal conditions of use against failure of:
Materials: According to 1(v) Durability of Paint Systems in the
Resene Paints One-Line Specifications and Product Data Manual.

The Contractor is to guarantee their work against all defects that may occur within three months from the completion of the contract and will be required to make good such defects at their own cost. Such defects specifically exclude damage, or consequential damage, caused by third parties which are the responsibility of the main contractor.

INSURANCE
The Contractor shall provide adequate Public Liability insurance.

This is the specification referred to in our contract

Dated _____

Owner _____

Witness _____

Contractor _____

Witness _____

TENDERS

CONTRACT FORM
The successful Contractor will be required to sign a form of contract on Page 2 of this specification and the appending of duly witnessed signatures will be taken to indicate that they have made themselves entirely familiar with their obligations as set out in this specification.

EXAMINE SITE
Tenderers are advised to examine the site and building before tendering. The submitting of a tender will be taken as indication that the Tenderers have visited the site and made themselves familiar with the matters that might affect the fulfilment of their part of the contract and have made due allowance in their tender for these. No consideration shall be granted for any misunderstanding as to the work to be performed or materials to be used.

TIME TO COMPLETION
The Tenderers shall state in their tender:
a) The date on which they could commence performance of the contract.
b) The period they will require in which to complete the contract.
c) The minimum number of workers they intend to have working on the performance of the contract.

ACCESS
Access to the site of the works for the purpose of carrying out the works shall be given to the Contractor on the date of commencement of the contract as specified under this clause. The Contractor shall begin the works immediately after such access has been given and shall proceed regularly with the same and shall complete performance of the contract within the time specified under this Clause.

BYLAWS AND REGULATIONS
The whole of the painting operations shall be carried out in conformity with Regulations and Requirements of all Public Bodies having jurisdiction in the matter and the Contractor shall pay any fees that may be payable in respect thereof.

1. GENERAL

This specification has been written in good faith with information available at the time. It is assumed that the nominated applicator has the necessary experience and equipment to fulfil the requirements of this specification. If any substrate differs or is missing from this specification, please advise the writer.

Any question arising from the specification is to be referred immediately to the writer or to the local Branch Manager, Resene Paints Limited.

Documents

1.1 DOCUMENTS REFERRED TO

Documents listed below and cited in the clauses that follow are part of this specification. However, the advice in any OSH documents and the Health and Safety in Employment Act 1992 (Amended 1993) take precedence in the event of it being at variance with other cited documents.

Documents referred to in this section are:
Resene One-Line Specifications and Product Data Manual
Resene - Putting Your Safety First
Health and Safety in Employment Act 1992 (Amended 1993)
Occupational Health and Safety Service (OSH) publication: Guidelines to the provision of facilities and general safety in the construction industry.
Occupational Health and Safety Service (OSH) publication: Guidelines for the management of lead-based paint.
AS/NZS 2311:2000 Guide to the painting of buildings
The Accoya Wood information Guide – November 2009

1.2 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:
The **Resene** One-Line Specifications and Product Data Manual.

Copies of the above **Resene** literature are available by phoning (NZ) 0800 **RESENE** (0800 737 363) or visiting www.**Resene**.co.nz

Requirements of the Contractor in the Completion of Defined Works

1.3 CONTROL SAMPLES

Prepare samples of the finished work, including the specified preparation if required by the architect or designer. Obtain written approval from the Principal's representative before proceeding.

Control samples may, after written approval, be used for comparative testing of dry film thicknesses of the complete coating systems.

1.4 QUALIFICATION

Painters to be experienced competent workers, familiar with the materials and the techniques specified and with the **Resene Paints** coating systems.

1.5 HEALTH AND SAFETY

Comply with the requirements of the Health and Safety in Employment Act 1992 (Amended 1993) and the Occupational Safety and Health Service (OSH) publication "Guidelines for the provision of facilities and general safety in the construction industry." If the elimination or isolation of potential hazards is not possible, then minimise hazards in this work on site by using the proper equipment and techniques as required by the **Resene** Putting Your Safety First handbook.

The Contractor must supply protective clothing and equipment, inform the

Principal's representative as well as the employees and others on site of the hazards and put in place procedures for dealing with emergencies.

1.6 MATERIAL SAFETY DATA SHEETS

Ensure all applicators have read the material safety data sheet for each product prior to use and comply with the required safety procedures. Material safety data sheets for all products can be obtained from **Resene** (In NZ: ring 0800 **RESENE**, or access from www.**Resene**.co.nz

Performance

1.7 RESENE PAINTS INSPECTION

Permit representatives of **Resene Paints** to inspect the work in progress and to take samples of their products from site if requested.

1.8 INSPECTION OF THE WORK

Inspection of the whole of the work at each of the stages may be made. If inspection is required, agree on a programme that will facilitate such inspection, including notification when each part and stage of the work is ready for inspection prior to the work commencing.

2. PRODUCTS

Materials

2.1 MATERIALS GENERALLY

All coatings to be **Resene Paints** products (which are guaranteed for consistency and performance under ISO 9001 and APAS) prepared, mixed and applied as directed in the **Resene Paints** One-Line Specifications and Product Data Manual.

Paint containers not in use are to have their lids or stoppers firmly affixed to prevent evaporation and contamination from foreign bodies.

2.2 COLOURS

Refer to AS/NZS 2311:2000 "Guide to the painting of buildings" Section 1.9 Selection of Colour.

Differently coloured paints will vary in price, opacity and durability. Colours, need to be clearly identified before tendering to allow reasonable pricing that will consider both price and the number of coats needed to obtain opacity. Resene normally only specify two coats of colour but with certain colours, such as yellows and oranges, three coats may be needed. Your Resene representative will assist.

Resene colours do vary in durability. Check with your local Resene representative if this is an important requirement of the job. Before any work commences painters should verify, with Architects or specifying authority, that their paint matches a previously supplied standard card or panel. The gloss level could also be checked at this stage.

Large wall areas that require more than one container of paint per coat should have enough paint boxed together to complete the final coat. This will not apply if a single factory batch of paint, rather than shop tinted paint, is applied.

Please ensure that the colour purchased is the same as selected. Resene Paints Limited accepts no responsibility for the application of incorrect colours.

Darker colours over damp timber may result in faster than normal drying out and subsequent cracking. This may occur if timber is wet before painting or becomes wet for any reason at a later date. This should be taken into account when choosing colours.

Where applicable use Resene CoolColour™ in your topcoats

2.3 PAINT SYSTEMS

Apply the listed **Resene Paints** systems for the accompanying substrates as per the coatings' schedule.

2.4 THINNERS/ADDITIVES

Use only if and when expressly directed by **Resene Paints** for their particular product in a particular application.

2.5 ACCESSORIES

Contact your local **Resene ColorShop** for a full range of accessories and usage advice.

3. EXECUTION

Conditions

3.1 EXECUTION

To conform with required trade practice, which shall be deemed to include those methods, practices and techniques contained in AS/NZS 2311:2000 "Guide to the painting of buildings" (Section 6.7 Methods of Application) and the Occupational Safety and Health (OSH) publication: "Guidelines for the provision of facilities and general safety in the construction industry."

3.2 TREATED SURFACES

Where surfaces have been treated with curing agents, preservatives, fire retardants, or similar, check with the treatment manufacturer that coating materials are compatible with the treatment and do not inhibit its performance. If they are not compatible, obtain instructions from the treatment manufacturer before proceeding.

3.3 ANCILLARY SURFACES

The descriptions of areas to be coated given in schedules and elsewhere are of necessity simplified. Coat all ancillary exposed surfaces to match similar or adjacent materials or areas, except where a fair-faced natural finish is required or items are completely prefinished. In cases of doubt obtain written instructions from the Principal's representative before proceeding.

The Contractor must complete any work obviously necessary for the proper and entire completion of the contract even if not specifically covered by this specification without extra cost to the principal.

3.4 HARDWARE

Do not paint hinges or hardware that cannot be removed. Before commencing work carefully remove all hardware, fixtures and fittings, set aside where they cannot be damaged or misplaced and replace on completion.

3.5 PROTECTION

Supply, lay and fix all drop sheets, coverings and masking necessary to protect non-specified surfaces, adjoining, fixtures, fittings and spaces from paint drops, spots, spray and damage.

Application - Preparatory Work

3.6 SURFACE PREPARATION

Refer to the **Resene** One-Line Specifications and Product Data Manual for surface preparation sheets (or obtain them by calling (in NZ) 0800 **RESENE**, or from the **Resene** website www.**Resene**.co.nz listed in the materials systems schedule clauses. Carry out all the preparatory work required by them for each of the substrates.

3.7 SHARP EDGES

For timber refer to AS/NZS 2311:2000 "Guide to the painting of buildings" Section 3.2.2 Standard of Finish

Sand sharp edges on timber to a rounded edge to ensure adequate paint cover. Apply a stripe coat of each specified coating on steelwork sharp edges and welds, in addition to the specified coat, to achieve the correct film build and maximise the potential of the paint system. Sand or file sharp edges on other substrates to a rounded profile where practicable.

3.8 REMEDIAL WORK

If any substrate or surface cannot be brought up to a standard that will allow painting or clear finishing of the required standard then do not proceed until remedial work is carried out.

3.9 GAP FILLING

Refer to AS/NZS 2311:2000 "Guide to the painting of buildings" Section 7.3.3 Gap Filling

Thoroughly clean and prepare cracks, holes, indented and damaged surfaces for filling. A special primer is needed with many substrates, while on others the filler can interfere with the coating. Check carefully and only use fillers in strict accordance with the manufacturer's directions. Elastomeric sealants that can tolerate 30% movement should only be used where gaps exist between different substrates or for expansion joints. Do not use elastomeric sealants for general hole filling. Do not paint over elastomeric sealants because they are liable to bleed plasticiser and are much more flexible than the paint.

3.10 SEALANTS

Where sealants are required, check with the sealant manufacturer that coating materials are compatible with the sealant and do not inhibit its performance. If they are not compatible, obtain instructions from the sealant manufacturer before proceeding. Check that the sealants are compatible with the Accoya modified wood substrate.

3.11 OFF SITE WORK

Carry out all this work under cover in a suitable environment with suitable lighting. Store all items, both before and after coating, in a clean, dry area protected from the weather and mechanical damage, properly stacked and spaced to allow air circulation and to prevent sticking.

3.12 PRIMING WEATHERBOARDS

Refer to AS/NZS 2311:2000 "Guide to the painting of buildings" Section 3.2.8 Machine Priming of Timber & Section 3.2.10 Effect of Timber Species.

All hidden timber surfaces, especially end grains and hidden joined surfaces must

be sealed with 2 coats of Resene Quick Dry Acrylic Primer Undercoat prior to fixing during the fabrication / construction stage. All back faces of weatherboards must also be primed as above.

3.13 CONCEALED METAL SURFACES

Apply primer/barrier coat to suit the coating system to all surfaces that will be concealed when incorporated into the building.

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Application - Generally

3.14 PAINTING GENERALLY

Comply with the **Resene Paints** One-Line Specifications and Product Data Sheets, product labels and the additional requirements of this work section.

All paints must be brought onto the job by the Contractor in their original sealed containers and be made available for inspection prior to application. Any materials supplied by the Contractor that differ from the material specified in this contract must be immediately removed from the job by the Contractor upon the Contractor being requested to do so.

No painting shall begin on any area until the approval of the Principal's representative is given.

3.15 MIXING

All paints to be thoroughly mixed. Lift any settled pigment and ensure the paint is homogenous.

3.16 ENVIRONMENT

Refer to AS/NZS 2311:2000 "Guide to the painting of buildings" Section 6.3 Climatic Conditions

Defer painting of exterior surfaces until weather conditions are favourable - warm dry days without frost or heavy dews. Avoid painting in direct sunlight any surfaces that absorb heat excessively.

Do not apply paint if the surface is less than 5°C above dew point, the relative humidity exceeds 85% (unless special precautions are taken to ensure that the surface is at least 5°C above the temperature of the surrounding air), there is moisture or ice visible on the substrate or if any of these conditions are likely to occur before the paint has dried.

As far as possible, apply paint in the temperature range 15°C to 25°C. If temperatures fall outside the range of 10°C and 35°C do not paint unless paints with the necessary temperature tolerances have been specified.

The Principal's representative may order painting to cease if, despite all conditions being met, there is a likelihood of frost. The Contractor may propose protective measures against frost and these measures will be subject to the approval of the Principal's representative.

3.17 SEQUENCE OF OPERATIONS

Painting work to generally follow the following sequence:

- Complete all surface preparation before commencing painting;
- Apply primers, sealers, stains, undercoats, paints and clear coatings in the sequences laid down by **Resene Paints;**
- Allow the full drying time between coats laid down by **Resene Paints**;
- Do not expose primers, undercoats and intermediate coats beyond a few days before applying the next coat. Refer to appropriate data sheets for recommended recoat times;
- Finish broad areas before painting trim;
- Ensure batch numbers of tins are matched for whole areas;
- Internally, paint ceilings before walls and walls before joinery, trim and other items.

3.18 APPLICATION

Refer to AS/NZS 2311:2000 “Guide to the painting of buildings” Section 6.7 Methods of Application

Select brush, roller, pad or spray and apply coatings to the requirements of **Resene Paints** to obtain a coating of the specified thickness, uniform gloss, surface finish and colour. Refer to the appropriate product data sheet and can label for appropriate application methods.

3.19 LIGHTLY SAND

Lightly sand all primers, sealers, undercoats and all intermediate coats to remove dust pick-up, protruding fibres and coarse particles. Complete by removing dust immediately before applying the next coat.

3.20 DEFECTIVE WORK

Immediately correct at own cost any defective work and recoat as required, following precisely the **Resene Paints** system being applied.

3.21 LOSS OR DAMAGE

The Contractor shall be responsible for any loss or damage that may be caused to the property of the Owner in the carrying out of this contract. The Contractor shall make good such loss or damage at the Contractor’s own expense, to the satisfaction of the Owner.

3.22 EACH COAT

Each coat of paint and the completed paint system to have the following qualities and properties:

- Uniform finish, colour, texture, sheen and hiding power and the proper number of coats applied;
- No blemishes such as runs, sags, crinkling, fat edges, entrained paint skins, hairs, dust, bare or starved patches, cracks, brush marks, ladder marks and blistering;
- Proper covering of corners, crannies, thin edges, cracks, end grains and other difficult places of application.

Completion

3.23 CLEAN

Clean all adjoining surfaces, glass and fittings of any paint contamination. Clean adjoining glass to a shining finish.

3.24 LEAVE

Leave the whole of this work uniform in gloss and colour, of correct thickness, free from all painting defects, clean and unmarked and to the standard required for all following trades.

3.25 REMOVE

Remove all drop sheets, coverings and masking to leave surrounding surfaces and areas clean, tidy and undamaged. Remove all debris, unused materials and elements from the site.

3.26 REPLACE

Replace all hardware without damage to it or the adjoining surface and leave hardware properly fitted and in working order.

4. SCHEDULES

Prepare surfaces and apply Resene paints in accordance with the attached paint system specifications.

1.0 NEW EXTERIOR ACCOYA WEATHERBOARDS - PAINTED

Condition: New factory primed Accoya modified timber.

Special Notes

Accoya® is based on an established chemical modification called "acetylation". For optimal paint system performance, like all conventional wood species, Accoya® requires application of a breathable paint system.

Particular attention needs to be given to properly sealing of the end grains during the construction process. The performance of paint systems over Accoya Timber is dependent on preventing water ingress into the timber.

Accoya Weatherboards / Cladding is factory primed with Resene True-Prime Beige, which also acts as a CoolColour™ Primer.

The Accoya and Resene recommendations for fabrication and painting must be followed at all times.

Newly primed Accoya must not be left to weather but top coated as soon as practicable, preferably within 6 weeks.

Tannin staining should not occur, unless the timber becomes saturated by water through either a design fault or structural failure that allows water to ingress.

PREPARATION & END GRAIN SPOT PRIMING

1.1 Ensure all surfaces are clean and free from contamination before painting, this includes surface dirt's, and chalk, mould, and other contaminate materials.

1.2 During installation/fixing, prime all cut bare faces / sides of the weatherboard with Resene Wood Primer with particular attention given to end grains, which require two (2) coats of the primer to help ensure a good seal against water ingress.
Data Sheet D40

1.3 All nail holes or areas of damaged timber **must** be filled with RepairCare Dry Flex SF epoxy filler as per the supplier's instructions. Spot prime these areas with Resene Quick Dry Acrylic Primer Undercoat.
Data Sheet D45

TOPCOAT PAINTING:

1.4 Apply a full coat of Resene Sonyx 101 at the spreading rate of 12 square metres per litre. **Data Sheet D30**

1..5 Apply a second coat of Resene Sonyx 101 at the spreading rate of 12 square metres per litre.

Notes:
1. Where applicable use Resene CoolColour™ in your topcoats
2. For a low sheen finish use Resene Lumbersider

2.0 NEW EXTERIOR ACCOYA WEATHERBOARDS - STAINED

Condition: New Accoya modified timber.

Special Notes

Particular attention needs to be given to properly sealing of the end grains during the construction process. All hidden timber surfaces, especially end grains and back faces of the board must be sealed with 1 coat of stain prior to fixing. This is standard practice and should be followed.

Note 1: Having your 1st and or 2nd coat of stain applied by a factory application process will ensure all faces are coated and reduces the on-site labour and time.

The Accoya and Resene recommendations for fabrication and coating must be followed at all times.

PREPARATION ON THE GROUND

2.1 Ensure all surfaces are clean and free from contamination.

2.2 Any bare timber that has been left to weather longer than one month, should be thoroughly sanded back to a sound timber surface, inspected for mould & if necessary treated with Resene Moss & Mould Killer. **Data Sheet D80**

1st COAT - STAINING ON SITE or FACTORY APPLICATION*

To all sides of boards & especially cut end grains

2.4 Apply a full coat of Resene Waterborne Woodsman at 3-14 square metres per litre depending on porosity and texture of the surface. (*refer to Note 1) **Data Sheet D57a**

Note 2: *During construction apply 2 coats to end grains on cut edges.*

STAINING ONCE ASSEMBLED:

2.5 Ensure all surfaces are clean and free from contamination.

2.6 Apply a finishing coat of Resene Waterborne Woodsman taking care to avoid an excessive build of stain on top of the timber. The application rate for the finishing coat will generally be much less than that for the first.

Note 3: *Spreading rates for Woodsman depend on the roughness of the timber. Check the data sheet for details.* Where applicable use Resene CoolColour™ in your topcoats

Note 4: *Woodsman will require regular maintenance at about 18 monthly intervals.*

3.0 NEW EXTERIOR ACCOYA DECKING - STAINED

Condition: New Accoya modified timber.

Special Notes

Particular attention needs to be given to properly sealing of the end grains during the construction process. All hidden timber surfaces, especially end grains and back faces of the board must be sealed with 1 coat of stain prior to fixing. This is standard practice and should be followed.

Note 1: Having your 1st and or 2nd coat of stain applied by a factory application process helps to ensure all faces are coated and reduces the on-site labour and time.

The Accoya and Resene recommendations for fabrication and coating must be followed at all times.

PREPARATION FOR ON SITE STAINING:

3.1 Thoroughly wash down with a 16 % solution of Resene Timber & Deck Wash and water to remove all dirt, dust, grease, chalk, cobwebs and other contaminants. Rinse thoroughly with clean water. Allow to dry. **Data Sheet D813**

Special Note: *Take care to avoid skin contact with Timber & Deck Wash*

1st COAT - STAINING ON SITE or FACTORY APPLICATION*

To all sides of boards & especially cut end grains

3.2 Apply a full coat of Resene Woodsman Wood Oil Stain at 10-12 square metres per litre depending on porosity of the surface. Allow 24 hours dry. **Data Sheet D57**

Note 2: *During construction apply 2 coats to end grains on cut edges.*

3.3 Ensure timber is in sound condition, dry and free of dirt and mould.

3.4 Apply a finishing coat of Resene Woodsman Wood Oil Stain at the spreading rate of 12-14 square metres per litre taking care to avoid an excessive build of stain on top of the timber.

Note 3: *Regular maintenance application of decks is required and especially in high traffic areas.*

Warning: Trafficable areas coated with this product will not comply with the Building Act Clause D1.3.3 (d) with regard to slip resistance

4.0 NEW EXTERIOR WINDOW JOINERY

Condition: New Accoya pine timber.

Special Notes:

The performance of paint systems on exterior doors and windows is dependent on careful surface preparation, painting and correct construction methods, please refer to ACCOYA technical sheets (The Accoya Wood information Guide) for more details on this. Top and bottom surfaces must have the full coating system applied and is best done before hanging. Particular attention is needed to ensure there are proper flashings above doors and windows and that the sides of joinery are properly weatherproofed by use of adequate scribers or sealants. All edges of the joinery and future hidden surfaces should be primed or sealed before assembly with particular attention to priming or sealing the end grains properly. Attention is needed to ensure all sharp edges on joinery are sanded to a rounded profile before painting.

Newly primed timber should not be left to weather but top coated as soon as practicable. For any reason that there is any bare timber, that has been left to weather, then it should be allowed to dry and thoroughly sanded back to a sound timber surface, treated for mould (use a 20% solution of Resene Moss & Mould Killer and leave 48 hours) and then thoroughly washed clean (use 25% solution of Resene Paint Prep and Housewash in water). **Data Sheet D80 & D812** and allowed to dry again.

This specification assumes all glazing is in sound condition and all constriction has been carried out as per the ACCOYA Wood Information Guide. Please refer to the Disclaimer on the front page of this document before proceeding further.

PREPARATION FOR PAINTING – JOINERY STAGE:

4.1 Sand any sharp arrisses on timber profiles to a rounded corner.

4.2 Ensure all surfaces are clean and free from contamination before painting.

4.3 Apply a full coat of Resene Wood Primer at the spreading rate of 12 square metres per litre. Brush well into punched nail holes or other areas requiring filling.
Data Sheet D40

4.4 Fill all primed nail holes with Repair Care Dry Flex SF (take care to NOT over fill any holes) in accordance with manufacturer's instructions. Spot prime filler (after 24 hours curing) with Resene Quick Dry Acrylic Primer Undercoat, as below.

4.5 If glazing compounds are required, then do not use putty, instead use Dry Seal MP Glazing Compound in accordance with manufacturer's instructions. Spot prime filler (after 24 hours cure) with Resene Quick Dry Acrylic Primer Undercoat as below.

PAINTING/FINISHING:

4.6 Apply a full coat of Resene Quick Dry Acrylic Primer Undercoat at the spreading rate of 12 square metres per litre. **Data Sheet D45**

4.7 Apply a full coat of Resene Enamacryl at the spreading rate of 12 square metres per litre. **Data Sheet D309**

4.8 Apply a second coat of Resene Enamacryl at the spreading rate of 12 square metres per litre as above.

Surface texture and abnormal surface porosity will effect either the spreading rate or the coverage achieved. Allowance for this should be made in the quotation.

This specification should be read in conjunction with the manufacturers recommendations contained in the relevant technical data sheets.

<u>Site Assistance</u>

Resene Representatives will visit specific job sites as required to assist with advice on adequacy of preparation; special mixing requirements; standard of application etc. However this should not be regarded as 'supervision', but simply 'site assistance'.

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