Surface Information and Preparation Data Sheet (SIPDS)
SIDPS No. 5
Miscellaneous Substrates

Contents

Introduction

This SIPDS covers the preparation requirements, as well as related issues for substrates and projects that do not 'easily' fall within the definition for SIPDS 1 through 4 (Interior wallboard: timber; cementitious surfaces; and metals), for the areas covered are listed above. Where appropriate, relevant standards are quoted within each section.

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

If the issue encountered or the surface is not covered in this SIPDS or in SIPDS 1 through 4; if there is an inconsistency between documents or data sheets; or if you are unsure of the most appropriate and or best preparation methodology or paint system, please contact Resene Technical Services.

SURFACE SPECIFICATION SHEETS

SECTION 1 - PVC – Guttering, Downpipes and Cladding (siding)

Spec Sheet 5:1/1 - New PVC – Guttering, Downpipes, Cladding

New PVC is typically used for guttering, downpipes and increasingly as a cladding material, where it is sometimes referred to as 'siding'. Painting PVC with a modern, high quality acrylic paint system is generally straight-forward. Typically, guttering and downpipes are painted in the same colour and paint as that used on the bargeboards and / or the walls. As PVC is prone to movement, shrinkage and expansion, light colours are recommended to minimise the effect. If dark colours are selected, Resene's Cool Colour technology should be specified if available.

Any unpainted PVC, usually guttering, that has expanded after movement can be touched up as part of general maintenance.

There are generally form oils and dirt and grease from the fixing process, as well as other contaminants on the surface, which will need removal before painting.

A primer is not required if correctly prepared and the recommended or selected topcoats specified.

Step 1: Thoroughly scrub down using a solution of Resene Paint Prep and House Wash and water to remove all surface chalking, dirt, detritus, moss and mould residue, cobwebs and other contaminants. Use as directed on the label. **Data Sheet D812**

Note I: When painting PVC, Resene strongly recommends that pale pastel colours are chosen. The use of dark colours in exposed areas may result in extension / shrinkage / warping of the PVC. The use of solvent-based paints should be avoided, as these can also damage the PVC.

Spec Sheet 5:1/2 - Old weathered PVC – Guttering, Downpipes, Cladding

UV damage will result in chalking, surface degradation and embrittlement, particularly in high UV areas and elevations. There is also likely to be moss and mould present.

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

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

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

Note II: When painting PVC, Resene strongly recommends that light colours are chosen. The use of dark colours in exposed areas may result in extension / shrinkage / warping of the PVC. The use of solvent-based paints should be avoided, as these can also damage the PVC.

Spec Sheet 5:1/3 - Repaint PVC– Guttering, Downpipes, Cladding

Painting previously painted PVC is usually straightforward. Treatment for moss and mould, and a thorough wash to remove degraded chalking paint surface and other contaminants is usually sufficient. However, if the paint system is failing, scraping and sanding will be required.

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

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

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

Step 3. Thoroughly scrape and sand to remove all loose and flaking paint and to provide a key for subsequent coats. Ensure all areas of flaked paint are thoroughly sanded to a feathered edge.

Note II: When painting PVC, Resene strongly recommends that light colours are chosen. The use of dark colours in exposed areas may result in extension / shrinkage / warping of the PVC. The use of solvent-based paints should be avoided, as these can also damage the PVC.

SECTION 2 – New Exterior Brick

Spec Sheet 5:2/1 - New Exterior Brick

There are a wide variety of bricks used for cladding, traditionally bricks were clay based but bricks made from concrete (called split stone) are now offered. .
Traditional clay bricks are weather resistant and undergo little change over time. In contrast concrete bricks undergo the same degradation as other concrete surfaces.
Bricks are typically laid in a stretcher pattern with a recessed mortar line. The mortar can be coloured to match or contrast with the brick colour. Efflorescence from mortar lines is a common feature of brick claddings and in particular with stand-alone bricks walls where water ingress through the wall is not controllable.
The appearance of the mortar joints can be reduced by bagging or application of an appropriate skim coat to the surface, for details of this contact Resene Construction Systems Ltd.

Step 1: Thoroughly wash using Resene Paint Prep and House Wash to remove residual surface contaminants, construction detritus, etc. Alternatively, water-blast at pressures up to 3000psi to achieve the same result. **Data Sheet D804**

Step 2: Apply a full coat of the Resene Concrete Primer, as per the painting specification. **Data Sheet D405**

Spec Sheet 5:2/2 – Weathered/Old Exterior Brick

Older brick walls are likely to require mould and any efflorescence treated. There is also likely to be accumulated windblown salts on the surface. These can stain and discolour waterborne paint systems and if the surface is too rough and / or textured, it can be hard to completely flush away. Mortar must be checked for cracks and repairs made.

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

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

Step 2: Thoroughly scrub down with Resene Paint Prep and House Wash in accordance with the data sheet to remove all dirt, dust, grease, any moss and mould residue, chalk, cobwebs and other contaminants. Alternatively, water blast at up to 3000psi. Any areas of efflorescence should be power wire brushed to remove the surface contamination. If leaks are present, (which are the likely cause of the efflorescence) they should be located and fixed. **Data Sheet D812**

Step 3: Apply a full coat of the Resene Sureseal, as per the painting specification. **Data Sheet D42**

If you are uncertain on how to proceed or require clarification, contact Resene Technical Services.

SECTION 3 –Acrylic Decking Membrane Systems

Spec Sheet 5:3/3 - Repainting of Acrylic Decking Membrane Systems

There are a number of fiberglass reinforced acrylic coating systems used to waterproof pedestrian decks (plywood or fibre cement construction) particularly where there is a habitable space below. These include Traffiguard ® and Dexx® systems

Typically the system will continue to perform its primary function as a weather-tight membrane. However the surface will weather and chalk over time depending on the degree of UV light it receives and the amount and nature of the surface foot traffic. Re-painting is generally required to restore aesthetics. As a consequence of weathering, fibreglass strands can become exposed due to erosion of the surface and the overall appearance becomes unacceptable.

Repainting is generally straightforward unless there is cracking and/or delamination of the membrane system which can occur as a result of substrate movement or water ingress. If this is the case or if there are water ingress issues, please contact Resene Technical services for advice.

This specification does not alter the weather tightness of the original decking system and is not suitable to restore weather tightness if the original membrane system is failing. Prior to using this specification the presence of an acrylic finish must be confirmed using the meths test. Ensure the area to be tested is chalk free then apply a cloth soaked with meths to the surface and rub. If there is surface coating dissolves/softens or is removed this this confirms the existing finish can be painted using this specification.

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

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

Step 2: Thoroughly scrub down with Resene Paint Prep and House Wash in accordance with the data sheet to remove all dirt, dust, grease, any moss and mould residue, chalk, cobwebs and other contaminants. **Data Sheet D812**

Step 3: Sand to remove all loose and flaking paint to a sound edge to provide a good key for subsequent coats. Spot prime on the same day or before surface gets damp.

SECTION 4 –Interior Laminates

Spec Sheet 5:4/1 - Painting Melteca and Formica

Factory produced laminates such as Melteca and Formica can be painted where a colour change only is required. However painting cannot replicate the original laminate properties and features.

Painting for colour change or upgrade should not be considered for laminates in wet areas such as shower linings

Step 1: Thoroughly wipe down using Resene Interior Paint Cleaner to remove all dirt, grease, stains, dust and other contaminants. Rinse thoroughly with clean water. Allow to dry**.**

Step 2: For best results thoroughly wet sand with 220 grit wet and dry paper to aid adhesion. Wipe down with a cloth and water to remove sanding debris.

Note I: While sanding will give the best results this can be omitted where contact with the painted surface is low frequency.

SECTION 5 – Butynol/EPDM Rubber Waterproofing Membranes for Roofs and Decks

Spec Sheet 5:5/3 – Weathered/Old & Repaint Butynol/EPDM Rubber Waterproofing Membranes for Roofs and Decks

Synthetic rubber membranes such as Butynol™ are used to water proof roofs and decks especially when there is little or no fall to the roof or deck profile. The membrane resists ageing from heat, sunlight and ozone and when first installed does not require painting.

However over time the surface will chalk due to weathering and to extend the life of the membrane painting can be undertaken. Weathering can result in release of pigments used to colour the rubber membrane and runoff of colour over painted surfaces below the roof or deck.

A paint system incorporating Resene Cool Colour technology can also assist in a reduction of be surface temperatures of the membrane and is a benefit to pedestrian membranes if the installed membrane is black.

Step 1: If any areas of moss or mould infestation exist then treat them with Resene Moss & Mould Killer, diluted and applied to label/data sheet. Leave for up to 48 hours to achieve full kill. For heavy infestations more applications may be needed.

Step 2: Thoroughly wash down with Resene Paint Prep and Housewash diluted and applied to data sheet/label.

Step 3: Waterblast at the maximum pressure that will not damage the substrate to remove all residue from the Roof Wash cleaning process, all salts and any other contaminants. Ensure any chalky, sooty layer is totally cleaned off.

Step 4: Check representative areas of the surface integrity by applying heavy white adhesive tape to the surface and removing it with a sharp yank. The presence of any coloured material on the back of the tape indicates further preparation is needed.

Note I: In areas where there is likely to be extended water ponding there may be adhesion problems if the coating does not have a few days to properly dry & cure.

Note II: Getting good adhesion over the membrane can be difficult but Resene Membrane Roofing Primer is a well proven solution.

Note III: Application of a paint system will not add to or detract from the water proof status of the membrane prior to painting.

SECTION 6 – Anti-Graffiti Systems

Spec Sheet 5:6/1 – Anti-Graffiti Systems – clear over pigmented base.

While there are a wide range of anti-graffiti systems available, we use the term to reference film forming coating systems from which graffiti can be removed using dedicated cleaners.

While hard and tough the surface will not resist gouging with sharp objects etc. However most pens, paint and spray tagging of walls coated with a Resene anti-graffiti coating can be removed using Resene Graffiti Cleaner with minimal effort and bother.

Resene has two systems that can be readily promoted as anti-graffiti systems:

- Resene Uracryl 400 Series, solventborne, available in gloss, semi-gloss and low sheen.
- Resene Uracryl GraffitiShield, waterborne, available in gloss, semi-gloss and flat

Both are acrylic urethanes and contain isocyanates which can be dangerous to use (spraying of isocyanate urethanes **cannot** be undertaken except under controlled conditions). However, while the Resene Uracryl 400 series are solvent borne, Resene Uracryl GraffitiShield is based on novel waterborne technology. Both systems have been developed for brush and roller application, thereby removing the need for spray application and the ensuing isocyanate issue.

Step 1: Allow the basecoat paint to cure for at least 48 hours.

Step 2: Thoroughly wash down with fresh water and allow to dry.

Note I: Protection against tagging is only required for accessible areas and usually restricted to a maximum height of 3 metres above a given access point.

Note II: The smoother the surface the more easily graffiti is able to be removed. If the surface is heavily textured, graffiti, especially from spray cans, will not be able to be removed from recesses in the surface. This is a design issue rather than a coating issue.

Note III: The higher the gloss level of the clear anti-graffiti topcoat the easier graffiti can be removed. Flat anti-graffiti clears are available however their effectiveness is reduced. They do have a place however, when used on stone, a flat finish has more natural looking aesthetics. Full gloss coatings also take longer to chalk, the ease of removal of graffiti decreases as the surface chalks so the higher the gloss level the longer it will resist the anti-graffiti cleaner solution.

Note IV: Resene anti-graffiti clears can only be applied to an acrylic basecoat paint. If available it is always prudent to use the Uracryl UVS (ultra violet stabilized) clear formulation, when clear coating a base colour which is prone to fading.

Note V: Graffiti is removed by wiping the affected area with Resene Graffiti Cleaner, scrubbing with a stiff nylon brush can assist removal. Once removed, hose or wash the area down with fresh water. Experts strongly advise that graffiti is removed as soon as practicable.

Note VI: Repeated cleaning of graffiti will ultimately generate the requirement to re instate the clear surface to allow removal.

SECTION 7 – Concrete / Terracotta Tile Roof

Spec Sheet 5:7/3 – Unpainted/unglazed - Concrete / Terracotta tile roof

Weathered concrete/terracotta tile roofs are typically infested with mould, widespread lichen and moss growth. Removal of these are critical to achieving a successful long term decorative paint system.

Step 1: Rake out all joints and tile over laps to remove accumulated debris. Remove large clumps of moss using a scraper.

Step 2: Spot treat areas of heavy lichen infestation with Resene Moss and Mould Killer diluted 1:1 with water and leave for 48 hours before proceeding to Step 3 **Data Sheet D80**

Step 3: Treat areas of moss / lichen infestation a few weeks prior to the commencement of painting with a saturation coat of Resene Deep Clean diluted and used to label directions. Resene Deep Clean is a slow release bio kill agent. Resene Deep Clean is best applied under overcast conditions to maximise wetting time. **Data Sheet D815**

Step 4: Water blast at the maximum pressure that will not damage tiles to remove all dirt, grease, moss and mould residue, dust, and other contaminants. Care is needed not to water-blast under the tiles. Allow the surface to dry thoroughly. Resene recommend that downpipes are disconnected during this process and that gutters are thoroughly cleaned out before reconnecting downpipes.

SECTION 8 – Decramastic Tile

Spec Sheet 5:8/3 – Painting aged Decramastic tile roofs

Upon weathering the tiles will lose chip texture due to erosion of the bitumen base back to base metal which at the extreme will result in corrosion. This specification will restore colour but not the original chip texture profile. Some mastic and bitumen-based coatings used in the manufacture of pressed roofing tiles prior to the early 1980's may contain asbestos. Certain profiles which are likely to contain asbestos are Decramastic and early Harvytiles.

Arrange for a specialist to take samples and undertake testing to confirm the presence or absence of asbestos OR assume that asbestos is present.

If asbestos is present, any work must be carried out in accordance the following documents:

- The Health and Safety at Work (Asbestos) Regulations 2016.
- WorkSafe New Zealand Approved Code of Practice-Management and removal of Asbestos
- The Health and Safety at Work Act 2015

Note 1: **If the presence of asbestos is confirmed** all surfaces must remain wet whilst being worked on during all preparation steps.

Step 1: Spot treat areas of heavy lichen infestation with Resene Moss and Mould Killer diluted 1:1 with water and leave for 48 hours before proceeding to Step 3 **Data Sheet D80**

Step 2: Treat areas of moss / lichen infestation at least 2 weeks prior to the commencement of painting with a saturation coat of Resene Deep Clean diluted and used to label directions. Resene Deep Clean is a slow release bio kill agent. Resene Deep Clean is best applied under overcast conditions to maximise wetting time.
Treat heavy infestations with a second application 4 hours after the first application and leave for at least 2 weeks before washing down with water, scrubbing to remove loose detritus (see Note: 1), then rinse with clean water **Data Sheet D815**

Step 3: Wash down with water to remove all dirt, grease, moss and mould residue, dust, and other contaminants. **WATER BLASTING IS NOT RECOMMENDED AS THIS WILL RESULT IN THE DISLODGEMENT OF CHIP**. Allow the surface to dry thoroughly. Resene recommend that downpipes are disconnected during this process and that gutters are thoroughly cleaned out before reconnecting downpipes. Place a coarse filter on the exit section of the downpipe to capture chip and debris and then dispose of in accordance with asbestos guidelines.

Step 4: All paint that is flaking or unsound must be removed by wet sanding (see Note: 1) to a sound feathered edge taking care not to damage either the substrate or the surrounding areas.
Remove all areas of white corrosion material and as much red rust as is practicable using mechanical methods, (3M Rust and Paint Removal Disc), taking care not to damage either the substrate or the surrounding areas.
Where under-film corrosion is taking place, the existing coating must first be removed as per above and remove corrosion products taking care not to damage sound zinc coated areas. All paint edges must be feathered to a smooth finish.

SECTION 9 – Asphalt

Spec Sheet 5:9/3 – Painting Asphalt

The word 'asphalt' is used to refer to a mixture of mineral aggregate and asphalt/bitumen. Due to its highly viscous nature, asphalt/bitumen mixes must be heated so it can be mixed and applied. The temperature required varies depending upon characteristics of the asphalt/bitumen and the aggregates.

Typically, the most important physical properties is durability. Due to chemical oxidation the asphalt mix generally becomes stiffer, more brittle and harder upon ageing/weathering. As the mix ages there is a colour change from the original black-brown to a grey.

Chip seal is predominantly used for roading/pavement construction. Chipseal is made of sprayed hot bitumen, or cold bitumen emulsion (bitumen that's sprayed on cold), with crushed stone, known as 'chips', rolled into the surface.

Painting may be required where specific colour identification is required e.g. disabled car parking areas or to restore the original colour. Allow newly asphalt mixes to weather for at least a month to remove oily deposits/additives from the surface prior to paint application.

Step 1: Scrub down using Resene Paint Prep and Housewash **Data Sheet D812**

Step 2: On old asphalt treat areas of .lichen growth with Resene Moss and Mould Killer diluted 1:1 with water. Leave for 48 hours. **Data Sheet D812**

Step 3: Water blast at 3000 psi

SECTION 10 – Fibreglass

Spec Sheet 5:10/1 – Paint New Fibreglass

Fibreglass is a common type of fibre-reinforced plastic (FRP) where glass fibre acts as the reinforced fibre. The glass fibre can be randomly arranged, flattened into a sheet (called a chopped strand mat), or woven into a fabric. The glass fibre is then encapsulated in a matrix most often an epoxy or polyester resin. For some specialised uses the resin system may be a vinylester where chemical and solvent resistance is required. Thermoplastic resins (waterborne resins) are also used in combination with the fiberglass for water proofing of decks. Fiberglass had a wide range of applications, from marine and construction.

The exterior durability of FRP will vary with the resin system used to encapsulate the glass fibre. Epoxy based FRP left exposed to weathering must be overcoated with a pigmented paint system to protect the FRP from chalking, the rate of chalking will be determined by the exposure level and epoxy resins used to make the composite. Acrylic based composites will inherently have better exterior durability.

The selection of paint system is dictated by the FRP binder type. For new moulded FRP there will be residual agents that must be removed prior to painting. Exposure of the FRP to weathering can result in surface chalking and if painted delamination of the FRP has been previously.

Step 1: Thoroughly scrub down using Resene Heavy Duty Paint Prep and Oil Remover diluted to label/data sheet. Ensure all cleaner residues are washed from the surface using copious amounts of fresh water. **Data Sheet D816**

Step 2: If the FRP is based on an epoxy or similar resin system thoroughly sand to prolife, **DO NOT SAND AGGRESIVELY TO EXPOSE THE GLASS FIBRE.**

Spec Sheet 5:10/3 – Repaint Fibreglass

Fibreglass is a common type of fibre-reinforced plastic (FRP) where glass fibre acts as the reinforced fibre. The glass fibre can be randomly arranged, flattened into a sheet (called a chopped strand mat), or woven into a fabric. The glass fibre is then encapsulated in a matrix most often an epoxy or polyester resin. For some specialised uses the resin system may be a vinylester where chemical and solvent resistance is required. Thermoplastic resins (waterborne resins) are also used in combination with the fiberglass for water proofing of decks. Fiberglass had a wide range of applications, from marine and construction.

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The selection of paint system is dictated by the FRP binder type. For new moulded FRP there will be residual agents that must be removed prior to painting. Exposure of the FRP to weathering can result in surface chalking and if painted delamination of the FRP has been previously.

Step 1: If there are any areas of moss or mould infestation treat these with Resene Moss & Mould Killer diluted to data sheet. Data Sheet D80. Thoroughly wash down with Resene Paint Prep and Housewash diluted to data sheet.. **Data Sheet D816**

Step 2: Wash down with copious amounts of fresh water or water blast at low pressures to remove surfaces contaminates**. ENSURE THE WATER BLASTING PRESSURES DO NOT DAMAGE THE FRP SUBSTRATE OR RELEASE GLASS FIBRES.**

Step 3: Sand areas of flaking paint to a sound feathered edge, if the existing paint system is a high performance 2 pack system then this will also require sanding to profile for re coating.