AUAV00090 Dulux Avista Resurfacing Base Compound with General Purpose Sealer on Aged Uncoated Substrate Concrete floors [Exterior]

Substrate and Substrate Preparation

Substrate Notes

Concrete is a mixture of Portland cement, fine and coarse mineral aggregates, water and admixtures. Concrete floor slab construction consists of concrete poured into formwork in which reinforcing steel had been laid. The formwork (usually timber) holds the slab together as the concrete cures. The concrete should be kept wet according to best practice methods to allow the cement to fully hydrate during the curing process of 4-6 weeks to allow it to reach its design strength. Methods include ponding, wet hessian, wet sand or plastic sheet. If allowed to dry out prematurely, concrete will develop laitance, a weak, friable layer on the surface.

A waterproofing membrane should be laid underneath the slab to prevent moisture from rising up from the soil through the slab and causing efflorescence. The presence of laitance or efflorescence will interfere with coating adhesion.

Substrate Preparation Notes

Assess suitability
Examine the floor for accumulated dirt, dust, oily deposits, laitance, efflorescence and other surface contaminants. Check the extent of wear, shrinkage or movement cracks, pits, mechanical damage and other imperfections.

Clean surface
Remove all surface and subsurface contamination using by a cleaning method appropriate for the contamination type encountered. For example, remove dirt, dust, grease or oils by washing with a free-rinsing, alkaline detergent such Gamlen CA 1 in strict accordance with the manufacturers written instructions and all safety warnings. Pay attention to expansion joints. Thoroughly rinse with fresh potable water to remove all detergent residues. A clean surface is indicated when the rinsing water wets out the surface instead of beading on the surface. Repeat until the surface is clean. Allow surface to dry.

Repair surface imperfections
Thoroughly and completely clean out, rout out (as required) and fill cracks, voids or other imperfections with a two-pack epoxy repair paste such as Nitomortar® AP strictly according to the technical data sheet.
Do not fill expansion joints with any rigid fillers. Leave these until after the floor is painted.
Note: Do not overcoat epoxy repair mortars with any clearcoat in areas exposed to UV; UV exposure will cause chalking of the epoxy surface and potential delamination of the coating system.

Abrade surface
Diamond grind, blast-track or mechanically abrade concrete floors in strict accordance with SSPC-SP 13/NACE No. 6 Joint Surface Preparation Standard “Surface Preparation of Concrete” to remove laitance, curing compounds, hardeners, loosely adhering concrete and/or other contaminants. The resultant surface should be a sound, uniform substrate, with a concrete surface profile in the range of CSP 2-3 as laid out in ICRI Guideline 310.2R-2013, “Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair”.
Note Dulux Protective Coatings does not recommend acid etching as a form of surface preparation. Remove all dust by thorough vacuum cleaning.

Check moisture
Check moisture content of the floor prior to painting and ensure that it is no greater than 5%*.
* To minimise the risk of moisture interference, Dulux recommends the following 2 tests be conducted prior to coating; ASTM F2659-10 “Standard Guide for Preliminary Evaluation of Concrete, Gypsum Cement and other Floor Slabs and Screeds using a Non-Destructive Electronic Moisture Meter” (Moisture Content to be <5%), and ASTM D4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” (no visible moisture present). If there is concern about moisture in the substrate, refer to Dulux Protective Coatings for further evaluation.
Note: The testing listed above cannot guarantee avoidance of future moisture related problems particularly with existing concrete slabs. This is especially true if the use of an under-slab moisture vapor barrier cannot be confirmed or concrete contamination from oils, chemical spills, unreacted silicates, chlorides or Alkali Silica Reaction (ASR) is suspected.

Coat surface
Check that the surface is clean, dust-free and defect-free prior to coating. Apply the floor coating system in strict accordance with the technical data sheets and specification without delay before the floor becomes recontaminated. Allow floor coating system to fully cure.
Seal structural control or expansion joints with a flexible polyurethane sealant such as Fosroc Nitoseal® PU400 in strict accordance with the technical data sheet. Do not paint over floor joint sealant.

Additional Notes

Acid etching is also an acceptable form of reparation with the Dulux Avista Resurfacing System, on uncoated surfaces only.
- Surface should be clean & free of dust, debris & contamination prior to acid etching.
- Combine Dulux Avista Hydrochloric acid at a ratio of 1 part acid to 20 parts water for porous concrete, or 1 part acid to 10 parts water for smooth concrete.
- Apply to surface with with a broad head watering can & pressure wash off immediately. Pressure clean using a minimum of 2000 psi. Do not allow the acid to dry on the surface.

NOTE: Do not scrub acid into the surface with a broom. Using a broom to push the acid/water mixture around can cause areas to be missed or insufficiently etched.

Coating System Summary

- 1st Coat — Dulux Avista Resurfacing Primer
- 2nd Coat — Dulux Avista Resurfacing Base Compound
- 3rd Coat — Dulux Avista Resurfacing Base Compound
- 4th Coat — Dulux Avista Concrete Sealer General Purpose Semi Gloss
- 5th Coat — Dulux Avista Concrete Sealer General Purpose Semi Gloss

Coating System

1st Coat — Dulux Avista Resurfacing Primer

Coat Type	Datasheet
1st Coat	**AUAV00007 Dulux Avista Resurfacing Primer**

Read the full Datasheet details at Dulux Avista Resurfacing Primer

Components
1

Application Methods

Roller **Floor Squeegee** **Broom**

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)			10

Meets GBCA V.O.C. Requirements?
Not Applicable

Coating Application Details

Shake Avista Primer container well before opening and then dilute 1 part Primer to 3 parts water in a clean bucket (4 litres of mixed Primer will cover approximately 40m² depending on the porosity of the concrete).

Apply the mixed primer to the surface using a soft broom, roller or sprayer. Spread evenly across the surface so primer doesn't pool as this can affect adhesion. Whilst the surface is still wet, the resurfacing coating can be applied.

Whilst the surface is still wet, Dulux Avista Resurfacing Compound can be applied as per the instructions on the bag.

2nd Coat — Dulux Avista Resurfacing Base Compound

Coat Type	Datasheet
2nd Coat	**AUAV00006 Dulux Avista Resurfacing Base Compound**

Read the full Datasheet details at Dulux Avista Resurfacing Base Compound

Components
3

Pot Life	Yield
appox. 30 minutes, depending on ambient conditions	**12.5L**

Application Methods

Floor Squeegee **Broom** **Trowel** **Hopper Gun**

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)	15	30	
Recoat Time **	40	NA	

V.O.C. Level	Meets GBCA V.O.C. Requirements?
11 grams per litre	**Not Applicable**

Coating Application Details

Add required amount of clean potable water (3.6 - 4.0 L).in a clean 20L bucket and add Avista Resurfacing Colour Oxide and mix thoroughly with mechanical mixer at low speed until mix colour is uniform.
Slowly add Dulux Avista Resurfacing Base Compound, mixing continually.
Once full content has been added, mix for a further 3 minutes. This step is critical in activating the polymers to achieve an even consistent mixture.

First coat should always be applied to a damp, primed surfaces. Applicable to all trowel or squeegee application methods.

Squeegee/Trowel application (recommended for first coat)

Pour a manageable quantity of Dulux Avista mixture onto the damp, primed concrete surface. Use squeegee or trowel evenly spread the resurfacing compound over the surface.
Do not exceed a thickness of 4 mm per coat, as this may lead to shrinkage cracking.
Subsequent trowel or spray coats can be applied to achieve desired decorative finish.

Spray application

Application will require a moisture trap air compressor & hopper gun. Recommended minimum compressor specs: 12 cfm with a 70L tank.
Add mix to hopper, ensuring not to overfill - recommend half full.
Before applying to surface, spray on separate fibro test board to obtain desired texture. Adjust pressure to vary texture.
Spray evenly across the surface, holding the hopper approximately 600mm from the ground.
Once area has been completely covered, allow to dry sufficiently to walk on.

Minimum 2 coats at total of minimum 3mm thickness required to achieve sufficient wear factor.
The Dulux Avista Resurfacing System must be sealed once the surface is completely dry. Options for sealing include:
- Dulux Avista General Purpose Sealer (S/G or matt)
- Dulux Avista Extended Wear Sealer
- Dulux Avista 2 Pack Urethane
- Dulux Avista Polyaspartic Sealer

SDS Number	SDS Link
	View SDS Link

3rd Coat — Dulux Avista Resurfacing Base Compound

Coat Type	Datasheet
3rd Coat	**AUAV00006 Dulux Avista Resurfacing Base Compound**

Read the full Datasheet details at Dulux Avista Resurfacing Base Compound

Components
3

Pot Life	Yield
appox. 30 minutes, depending on ambient conditions	**12.5L**

Application Methods

Floor Squeegee **Broom** **Trowel** **Hopper Gun**

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)	15	30	
Recoat Time **	40	NA	

V.O.C. Level	Meets GBCA V.O.C. Requirements?

11 grams per litre	**Not Applicable**

Coating Application Details

Add required amount of clean potable water (3.6 - 4.0 L).in a clean 20L bucket and add Avista Resurfacing Colour Oxide and mix thoroughly with mechanical mixer at low speed until mix colour is uniform.
Slowly add Dulux Avista Resurfacing Base Compound, mixing continually.
Once full content has been added, mix for a further 3 minutes. This step is critical in activating the polymers to achieve an even consistent mixture.

First coat should always be applied to a damp, primed surfaces. Applicable to all trowel or squeegee application methods.

Squeegee/Trowel application (recommended for first coat)

Pour a manageable quantity of Dulux Avista mixture onto the damp, primed concrete surface. Use squeegee or trowel evenly spread the resurfacing compound over the surface.
Do not exceed a thickness of 4 mm per coat, as this may lead to shrinkage cracking.
Subsequent trowel or spray coats can be applied to achieve desired decorative finish.

Spray application

Application will require a moisture trap air compressor & hopper gun. Recommended minimum compressor specs: 12 cfm with a 70L tank.
Add mix to hopper, ensuring not to overfill - recommend half full.
Before applying to surface, spray on separate fibro test board to obtain desired texture. Adjust pressure to vary texture.
Spray evenly across the surface, holding the hopper approximately 600mm from the ground.
Once area has been completely covered, allow to dry sufficiently to walk on.

Minimum 2 coats at total of minimum 3mm thickness required to achieve sufficient wear factor.
The Dulux Avista Resurfacing System must be sealed once the surface is completely dry. Options for sealing include:
- Dulux Avista General Purpose Sealer (S/G or matt)
- Dulux Avista Extended Wear Sealer
- Dulux Avista 2 Pack Urethane
- Dulux Avista Polyaspartic Sealer

SDS Number	SDS Link View SDS Link

4th Coat — Dulux Avista Concrete Sealer General Purpose Semi Gloss

Coat Type **4th Coat**	Datasheet **AUAV00019 Dulux Avista Concrete Sealer General Purpose Semi Gloss**

Read the full Datasheet details at Dulux Avista Concrete Sealer General Purpose Semi Gloss

Components
1

Application Methods

Air Spray **Brush** **Roller** **Broom**

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)	3	6	4
Wet Film Per Coat (microns)	80	150	120
Dry Film Per Coat (microns)	40	80	60
Recoat Time **			2 hours

V.O.C. Level **689g per litre**	Meets GBCA V.O.C. Requirements? **Not Applicable**

Coating Application Details

Application Methods

Sealer to be applied by a suitable solvent resistant broom or 11mm-22mm nap roller. Roller used will depend on the profile of the concrete.
The sealer must be mixed prior to application using a stirrer or paddle.

To apply sealer, pour sealer into a roller tray, and evenly roll or broom onto the surface.
Ensure sealer is not applied too thick and no pooling occurs as this may cause bubbling.
Avoid excess sealer build up on the edges of the roller. This can lead to roller lines in the surface.
An additional coat of sealer can be applied after a minimum of 2 hours, (recommended recoat 2 hours)

Drying time: Minimum of 2 hours between coats when applied at 25°C and above at 50% relative humidity. Recoat times will be longer in cooler weather (<25°C) or higher humidity.
Do not apply sealer at temperatures below 8°C or above 35°C.
To obtain a higher slip resistance it is advisable to use the appropriate Slip Reducing Additive with the sealer for better grip under adverse conditions e.g. wet areas, steep slopes and pool surround areas.

SDS Number	SDS Link
PAR000582	**View SDS Link**

5th Coat — Dulux Avista Concrete Sealer General Purpose Semi Gloss

Coat Type	Datasheet
5th Coat	**AUAV00019 Dulux Avista Concrete Sealer General Purpose Semi Gloss**

Read the full Datasheet details at Dulux Avista Concrete Sealer General Purpose Semi Gloss

Components
1

Application Methods

Air Spray **Brush** **Roller** **Broom**

	Min	Max	Recommended
Theoretical Spread Rate (m²/L)	3	6	4
Wet Film Per Coat (microns)	80	150	120
Dry Film Per Coat (microns)	40	80	60
Recoat Time **			2 hours

V.O.C. Level	Meets GBCA V.O.C. Requirements?
689g per litre	**Not Applicable**

Coating Application Details

Application Methods

Sealer to be applied by a suitable solvent resistant broom or 11mm-22mm nap roller. Roller used will depend on the profile of the concrete.
The sealer must be mixed prior to application using a stirrer or paddle.
To apply sealer, pour sealer into a roller tray, and evenly roll or broom onto the surface.
Ensure sealer is not applied too thick and no pooling occurs as this may cause bubbling.
Avoid excess sealer build up on the edges of the roller. This can lead to roller lines in the surface.
An additional coat of sealer can be applied after a minimum of 2 hours, (recommended recoat 2 hours)

Drying time: Minimum of 2 hours between coats when applied at 25°C and above at 50% relative humidity. Recoat times will be longer in cooler weather (<25°C) or higher humidity.
Do not apply sealer at temperatures below 8°C or above 35°C.
To obtain a higher slip resistance it is advisable to use the appropriate Slip Reducing Additive with the sealer for better grip under adverse conditions e.g. wet areas, steep slopes and pool surround areas.

SDS Number	SDS Link
PAR000582	**View SDS Link**

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