

Application Guide

PaveCoat

This guide has been developed to provide comprehensive preparation and application recommendations for a variety of concrete surfaces. Whilst all endeavours have been taken to provide best practice industry information for all aspects of preparation and the application of our products, the user must understand that all concrete surfaces are unique and not every situation will be covered in this guide.

For reliable and enduring results, Nutech Paint recommends utilising the specified range of Nutech products in this guide. Intermixing different supplier products may result in incompatibility of the systems, potentially resulting in coating failure.

For further technical recommendations and advice, please contact Nutech Paint.

Prior to Commencement of works:

Observe all Occupational Health and Safety (OH&S) precautions.

Refer to the relevant Technical Data Sheets (TDS) and Safety Data Sheets (SDS) for product specific and safety related information.

For further information and support: **Nutech Paint 03 9770 3000**
www.nutechpaint.com.au

Recommended Safety Equipment:

Reference copies of the relevant product Safety Data Sheets (SDS), coveralls, safety boots, gloves, suitable respirator, safety glasses, and or face shield.

Recommended Equipment:

Preparation: Plastic watering can with a rose type shower head*, pump pack hand sprayer*, buckets, fresh water supply, high pressure water cleaner (Minimum 2000 psi), moisture meter* or plastic sheet*, masking tape, masking paper, drill mixer, protective drop sheets.

Application Equipment:

Roller (230mm x 22mm nap roller sleeves), Brush or Broom. Clean and empty mixing drum

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| <p>Nutech Tip: Preferred application method: Avoid using roller trays where practical. Once product is correctly mixed, dip roller directly into drum to ensure complete product coverage.</p> |
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Clean up and disposal:

Clean Up: Applicator equipment clean up materials, cleaning solvent (**PaveCoat Thinners**).

Disposal: Dispose of all materials in a responsible manner. Consult local authority for suitable disposal recommendations.

* Where applicable based on guidelines

Substrate Recommendations:

All types of concrete such as; driveways, paving, footpaths, concrete roof tiles, pattern paving, stamped and slate impression paving, stencil paving, spray paving, tilt slab construction and cement sheeting.

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1. Concrete Preparation Guidelines - New, bare concrete surfaces:

NOTE: Allow a minimum of 7 days for new concrete to cure prior to sealing.

1.1 Cleaning:

- Remove all loose contaminants including dust, dirt and debris
- Where required, clean residual grease and oil using **Nu-EcoSafe Degreaser**
- Mix 1 part **Nu-EcoSafe Degreaser** to 4 parts water
- Apply by plastic watering can or pump spray pack, liberally to the soiled area
- Allow the solution to activate on the surface for a minimum of 2 hours
- High pressure clean with a recommended minimum water pressure of 2000 psi

1.2 Etching new, bare concrete:

Note: PaveCoat **MUST** penetrate the surface to achieve good adhesion. It is imperative that the concrete surface is porous prior to application, to improve sealer absorption.

****DO NOT Etch if mechanical grinding has taken place or if the concrete is powdery or soft. Further surface treatment may be required. Please contact Nutech Paint for further advice.**

1.2.1 Mixing the etch

- Use a plastic watering can to mix and apply the etch as outlined;
- **Rough stipple finished concrete:**
1 part **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** to 15 parts clean water
- **Smooth steel trowelled concrete surfaces:**
1 part **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** to 10 parts clean water
- **Hardened or High MPa Concrete:**
1 part **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** to 5 parts clean water

Nutech Tip: When mixing **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch**, always add the etch in the recommended ratio to water.

1.2.2 Applying the etch

- Use the watering can to evenly wet the entire concrete surface with diluted **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** solution and allow to activate on the surface for 15 minutes
- After 15 minutes, high pressure clean with a recommended minimum water pressure of 2000 psi
- Allow the concrete surface to dry thoroughly

1.3 Test for porosity and moisture content:

1.3.1 Determine Porosity

- Measure 1 cup of fresh water and pour onto the dry surface
- Observe water absorption noting absorption within 30 seconds
- If water pools or is slow to be absorbed, a second stronger solution of etch will be required. (Refer etch mix ratios in section 1.2.1 and follow directions for Hardened or High MPa Concrete)

- Repeat process for determining porosity

1.3.2 Determine moisture content

- The concrete should have less than 5% moisture content prior to sealing
- A calibrated moisture test meter should be used to assess the percentage of moisture present prior to application

Nutech Tip: If there is no access to a moisture test meter, tape a plastic sheet onto the concrete surface and leave for 30 minutes. After 30 minutes, lift the plastic sheet. If no moisture or condensation is present under the sheet, the concrete is dry enough to apply the sealer.

2. Concrete Preparation Guidelines - Old, bare concrete surfaces:

Prior to commencing, assess the concrete surface for surface contamination and identify areas to be sealed which will require thorough cleaning. Assess the area to be sealed for surface porosity, cracks and structural issues. Where required, consult an engineer for further advice.

2.1 Cleaning:

2.1.1 – Grease and oil removal

- Remove all loose contaminants including dust, dirt and debris
- Where required, clean residual grease and oil using **Nu-EcoSafe Degreaser**
- Mix 1 part **Nu-EcoSafe Degreaser** to 4 parts water
- Apply by plastic watering can or pump spray pack, liberally to the soiled area
- Allow the solution to activate on the surface for a minimum of 2 hours
- High pressure clean with a recommended minimum water pressure of 2000 psi
- Allow the concrete surface to dry thoroughly

Nutech Tip: For stubborn grease and oil stains, a second undiluted application of **Nu-EcoSafe Degreaser** may be required.

2.1.2 – Moss and lichen removal (where applicable)

- Remove all loose contaminants including moss build up, dust, dirt and debris
- Mix **Nutech Hypo** based on level of contamination;
 - **Lightly Soiled Areas:** Mix 1 to 1 with clean fresh water
 - **Heavily Soiled Areas:** Neat – no dilution required
- Apply liberally to affected areas via watering can or pump spray pack
- Allow **Nutech Hypo** to activate on the surface for a minimum of 2 hours
- High pressure clean with a recommended minimum water pressure of 2000 psi
- Allow the concrete surface to dry thoroughly

2.2 Determine for porosity:

Nutech Tip: Old concrete surfaces may exhibit different levels of porosity. A porosity test should be conducted to assess suitability of sealer penetration.

- Measure 1 cup of fresh water and pour onto the dry, surface
- Observe water absorption noting absorption within 30 seconds
- If water pools or is slow to be absorbed, etching of the surface will be required

2.3 Etching old, bare concrete (where applicable):

Note: PaveCoat **MUST** penetrate the surface to achieve good adhesion. It is imperative that the concrete surface is porous prior to application, to improve sealer absorption.

****DO NOT Etch if mechanical grinding has taken place or if the concrete is powdery or soft.**

Further surface treatment may be required. Please contact Nutech Paint for further advice.

2.3.1 Mixing the etch

- Use a plastic watering can to mix and apply the etch as outlined;
- **Rough stipple finished concrete:**
1 part **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** to 15 parts clean water
- **Smooth steel trowelled concrete surfaces:**
1 part **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** to 10 parts clean water
- **Hardened or High MPa Concrete:**
1 part **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** to 5 parts clean water

Nutech Tip: When mixing **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch**, always add the etch in the recommended ratio to water.

2.3.2 Applying the etch

- Use the watering can to evenly wet the entire concrete surface with diluted **Nu-EcoSafe Etch** or **Nu-EcoSafe UltraEtch** solution and allow to activate on the surface for 15 minutes
- After 15 minutes, high pressure clean with a minimum water pressure of 2000 psi
- Allow the concrete surface to dry thoroughly

2.4 Test for porosity and moisture content:

2.4.1 Determine porosity

- Measure 1 cup of fresh water and pour onto the dry surface
- Observe water absorption noting absorption within 30 seconds
- If water pools or is slow to be absorbed, a second stronger solution of etch will be required. (Refer Etch mix ratios in section 2.3.1 and follow directions for Hardened or High MPa Concrete)
- Repeat process for determining porosity

2.4.2 Determine moisture content

- The concrete should have less than 5% moisture content prior to sealing.
- A calibrated moisture test meter should be used to assess the percentage of moisture present prior to application.

Nutech Tip: If there is no access to a moisture test meter, tape a plastic sheet onto the concrete surface and leave for 30 minutes. After 30 minutes, lift the plastic sheet. If no moisture or condensation is present under the sheet, the concrete is dry enough to apply the sealer.

3. Concrete Preparation Guidelines - Pre-Painted/Sealed Concrete Surfaces:

NOTE: PaveCoat **IS NOT** suitable for use over standard enamel or epoxy floor finishes.

To determine an existing coating: Refer Nutech Coating Test Kit for detailed instructions or contact Nutech Paint.

3.1 Very old, incompatible, delaminating, problem coatings and sealers:

- These types of coatings or sealers should be completely removed. Stripping with **Nu-EcoSafe Strip Industrial** (refer to the relevant TDS) or by grinding is recommended, to remove all of the existing coatings.
- After coating removal, refer to the Old Bare Concrete Preparation Guidelines

3.2 Compatible, previously sealed surfaces:

NOTE: in order to reactivate an existing compatible sealer, the use of **Reactivating Solvent** will aid in improving adhesion to the existing sealer.

3.2.1 Cleaning

- Remove all loose contaminants including dust, dirt, old flaking sealer and debris
- High pressure clean with a recommended minimum water pressure of 2000 psi
- Where required, clean residual grease and oil using **Nu-EcoSafe Degreaser**
- Mix 1 part **Nu-EcoSafe Degreaser** to 4 parts water
- Apply by plastic watering can or pump spray pack, liberally to the soiled area
- Allow the solution to activate on the surface for a minimum of 2 hours
- High pressure clean with a recommended minimum water pressure of 2000 psi
- Allow the surface to dry thoroughly
- Repair and fill any areas where the concrete is cracked or damaged

3.2.2 Re-activating the surface

- Apply **Reactivating Solvent** to surface liberally in 2 – 4m² sections
- Allow **Reactivating Solvent** to remain on surface for approximately 5 – 10 minutes
- With a stiff broom or brush, scrub the surface to remelt all layers of old sealer
- Broom/ brush the surface until all layers of sealer have been fully dissolved
- **DO NOT coat for a minimum of 48 hours to allow for the solvent to thoroughly evaporate**

4. PaveCoat Application:

4.1 Notes prior to application:

- The concrete surface should have less than 5% moisture content prior to sealing
- Stir **PaveCoat** sealer thoroughly PRIOR to thinner dilution and application
- On very porous concrete, thinning of the first coat may not be required
- Take care to avoid sealer pooling in mortar joints and saw cuts

Nutech Tip: Identify and create a safe mixing area ensuring all required equipment and clean up materials are close at hand.

4.2 1st Coat:

4.2.1 Mixing and thinning

It is important to ensure good penetration into the concrete on first coat application.

- **Hardened, Topping Coloured or Smooth Steel Trowelled concrete surfaces:**
Dilute & Mix: By 50% PaveCoat Thinners to PaveCoat Sealer
- **Rough stipple finished concrete surfaces:**
Dilute & Mix: By 20% PaveCoat Thinners to PaveCoat Sealer
- **Reactivated, Previously Sealed Concrete surfaces:**
Dilute & Mix: Typically, no dilution or by up to 10% PaveCoat Thinners to PaveCoat Sealer

4.2.2 Application

- Roller or Brush apply (Broom application for stencilled or pattern paving), ensuring coverage of 4m² per Litre. DO NOT overspread
- Allow a minimum of 2 hours dry time @ 25°C prior to recoating

Nutech Tip: Preferred application method: Avoid using roller trays where practical. Once product is correctly mixed, dip roller directly into drum to ensure complete product coverage.

4.3 2nd Coat:

4.3.1 Mixing and thinning:

The second coat and (where applicable) subsequent coats of **PaveCoat** do not require thinning

Nutech Tip: **AntiSlip Mix In** is to be added at this stage. Refer to the **AntiSlip Mix In** ratios in section 7

4.3.2 Application:

- Roller or Brush, ensuring coverage of 4m² per Litre. DO NOT overspread
- Allow a minimum of 2 hours dry time @ 25°C

Note: More than two coats of a light-coloured sealer may be required on very porous concrete or when over coating a dark surface.

5. Application Conditions, Drying & Recoat Times:

5.1 Application Conditions:

PaveCoat should be applied in ambient conditions ranging between 10°C to 30°C.

Do not apply if; rain is likely within 12 hours, it is late in the day or early in the morning.

Failure to observe these directions can result in coating damage and surface clouding.

5.2 Touch Dry: 30 minutes @25°C

5.3 Recoat: 2 hours @25°C

Drying time between coats is dependent on ambient temperatures and time of day. Observe recommendations noted in the **PaveCoat** TDS and this application guide (Section 4.2.2).

5.4 Full cure: Not achieved for up to 7 days

NOTE: DO NOT DRIVE OR PARK VEHICLES ON FRESHLY SEALED SURFACE FOR A MINIMUM OF 7 DAYS.

6. Clean Up & Spills

6.1 Clean Up:

Clean up with **PaveCoat Thinners** or dispose of equipment. Do not pour left over paint down drains or in rubbish bins.

Unwanted paint should be kept in a sealed container and then disposed of via special waste collection services.

Empty paint containers should be left open in a well ventilated area to dry out. Dispose of empty paint containers in accordance with local authority's guidelines. Always check with your local council first.

6.2 Spills:

For the clean up of minor spills, Nutech Paint recommends utilising **Nu-EcoSafe EcoZorb**.

Refer to the **Nu-EcoSafe EcoZorb** TDS for directions.

7. AntiSlip:

7.1 AntiSlip Mix In:

In areas of high trafficability or slight incline where added traction and slip resistance are required **Nutech AntiSlip Mix In** additive should be used.

For anti-slip properties that meet AS4586 & AS4663 - P2 or P3 ratings Nutech Paint recommends **AntiSlip Mix In**. Ideally suited for areas with less than a 5° incline, such as driveways, wet areas, factory loading docks, access ramps, entrance foyers, pedestrian and vehicle areas.

Note: For a higher degree of slip resistance or for steep inclines and gradients greater than 1 in 14, a P5 or R12 rating will be required. Where appropriate, Nutech Paint recommends EPiC PolyCryl (for exterior & Interior) OR EPiC Epoxy 500 (for Interior Only) with suitable AntiSlip products.

7.1.1 AntiSlip Mix In Ratio & Rating

| AntiSlip Grade | Addition (per 20L) | Product | Rating |
|-----------------|--------------------|----------|--------|
| AntiSlip Mix In | 400gm | PaveCoat | P2 |
| AntiSlip Mix In | 800gm | PaveCoat | R3 |

7.1.2 AntiSlip Mix In Procedure

- **AntiSlip Mix In is only required as an addition to the final coat**
- Mix the desired quantity relevant to the required anti-slip P rating into the **PaveCoat** product
- Stir well until no visible lumps
- Allow to stand for 10 minutes, re-stir prior to use
- **Keep blended product agitated during application**

Disclaimer: The information given in this Application Guide is based on many years' experience and is correct to the best of our knowledge. However, since the use of our products, surface conditions, weather and a number of other factors are completely beyond our control, we can only be responsible for the quality of our product at the time of dispatch. As this information is of a general nature, we cannot assume any responsibility in individual cases. For more information please contact Nutech Paint.

The information contained in this Application Guide is subject to amendments in the light of experience and our policy of continuous improvement and product development.

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