# Enviro Ultra Tuff

## APPLICATION METHOD STATEMENT

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# Introduction

Enviro Ultra Tuff Coating is 100% solids, solvent-free coating with high chemical resistance. It uniquely combines the benefits of a solvent-free system with novolac chemistry. Once fully cured, it forms a smooth, glossy finish that is both hard, durable, and easy to maintain.

The following pages provide specific information on the preparation and installation of Enviro Ultra Tuff to on suitably prepared substrates, as outlined in the individual product data sheet.

# General Information

This installation manual has been prepared by Envirosystems Technologies and is intended to assist in the systematic application of Envirosystems products to ensure a reliable level of product quality and performance.

The design and application of the waterproofing membrane should be done in compliance with EPA requirements and relevant government legislation.

Parameters outlined in this manual should be used as a guide for application reference. This manual does not override any project specific operation standards.

Envirosystems Technologies is not liable for any damage to the installed products, by any party.

# Product Specification

| Component | Details |
|---|---|
| Substrate | Enviro Ultra Tuff can be applied over the following suitably prepared substrates:<br>• Concrete<br>• Renders<br>• Masonry Walls<br>• Cementitious Sheeting<br>• Plywood (marine grade only)<br>• Steel |
| Patching | Enviro Epoxy B-NS<br>• Solvent Free, Thixotropic skimming and priming epoxy.<br>• Applied by trowel, skimming across the substrate. |
| Primer Coat | Enviro Epoxy B-LV<br>• Solvent Free, Low Viscosity Epoxy.<br>• Applied at a rate of 0.16 L/m² to a dry film thickness (DFT) of 150 microns. For poor substrates apply an additional coat after allowing the first coat to dry overnight. |

| | |
|---|---|
| Coating | Enviro Ultra Tuff<br><br>• Solvent free, 100% solids, high chemical resistant coating.<br>• Enviro Ultra Tuff can be applied by brush, roller and spray in 2 coats at a rate of 6.7m²/L per coat to minimum dry film thickness of 0.3mm.<br>• To achieve a non-slip finish, broadcast selected aggregate onto the first coat and allow to cure overnight. Remove excess prior to applying a second coat. |

# Application Procedure

Application is to be done by accredited applicators only and strictly in accordance with the product data sheet. The appropriate product data sheets should be read and understood thoroughly before the application.

## SUBSTRATE PREPARATION

### Concrete

- Ensure that the concrete substrate is free from contaminants. Optimum surface preparation includes, mechanical profiling, such as captive shot blast cleaning or vacuum grinding.
- Fill all bug holes and defects in concrete with a suitable and approved repair product, such as the Enviro Epoxy B range of concrete repair products and allow curing.
- Grind out cracks and fill a suitable and approved repair product, such as the Enviro Epoxy B range of concrete repair products and allow curing.
- All construction joints shall be treated with an appropriate detail, depending on the anticipated level of substrate movement. Please consult Envirosystems for clarification, where required.
- Wall/ floor joints can be treated with an epoxy cove consisting of Enviro Epoxy B + aggregate to the desired cove dimensions.

### Cementitious Renders

- Ensure that the render has been appropriately cured and has properly adhered to the structural substrate.
- The surface of the render should be free from all loose particles, sharp edges, and contaminants.
- All construction joints shall be treated with an appropriate detail, depending on the anticipated level of substrate movement. Please consult Envirosystems for clarification, where required.
- Wall/ floor joints can be treated with an epoxy cove consisting of Enviro Epoxy B + aggregate to the desired cove dimensions.

- Consult Envirosystems for membrane compatibility with proprietary render products.

## Masonry

- Ensure that the concrete substrate is free from contaminants. Optimum surface preparation includes, mechanical profiling, such as captive shot blast cleaning or vacuum grinding.
- Fill all bug holes and defects in concrete with a suitable and approved repair product, such as the Enviro Epoxy B range of concrete repair products and allow curing.
- Grind out cracks and fill a suitable and approved repair product, such as the Enviro Epoxy B range of concrete repair products and allow curing.
- All construction joints shall be treated with an appropriate detail, depending on the anticipated level of substrate movement. Please consult Envirosystems for clarification, where required.
- Wall/ floor joints can be treated with an epoxy cove consisting of Enviro Epoxy B + aggregate to the desired cove dimensions.

## Cementitious Sheeting

- Ensure that the substrate is free from contaminants (including any pre-applied water-resistant coatings) and has a sufficiently rough surface texture; this is best achieved by sanding the surface with coarse sandpaper.
- Ensure that the sheeting is installed in accordance with manufacturer's recommendation and relevant Australian standards, to provide a stable substrate with appropriate falls to a drainage point.
- Joints between adjacent sheets should be supported for the entirety of their span to avoid excessive, differential movement.
- All joints between sheets shall be treated with an appropriate detail, depending on the anticipated level of substrate movement. Please consult Envirosystems for clarification, where required.
- Wall/ floor joints can be treated with an epoxy cove consisting of Enviro Epoxy B + aggregate to the desired cove dimensions.

## Plywood (Marine Grade Only)

- Ensure that the substrate is free from contaminants (including any pre-applied water-resistant coatings) and has a sufficiently rough surface texture; this is best achieved by sanding the surface with coarse sandpaper.
- Ensure that the timber is installed in accordance with manufacturer's recommendation and relevant Australian standards, to provide a stable substrate with appropriate falls to a drainage point.

- Joints between adjacent sheets should be supported for the entirety of their span to avoid excessive, differential movement.
- All joints between sheets shall be treated with an appropriate detail, depending on the anticipated level of substrate movement. Please consult Envirosystems for clarification, where required.
- Wall/ floor joints can be treated with an epoxy cove consisting of Enviro Epoxy B + aggregate to the desired cove dimensions.

### Steel

- Ensure that the substrate is free from contaminants, by blast cleaning (or similar).
- Ensure that the substrate has a suitably rough surface texture, providing a key for the mechanical adhesion of subsequent coatings.

## PRIMING

### Enviro Epoxy B-LV

- Add Part B (liquid hardener) to the Enviro Epoxy B-LV Part A (base). Correct mix proportions are 2 to 1, A:B, by volume.
- Combined components should then be mixed using slow speed mechanical mixing equipment with suitable mixing paddle attached, mix for a minimum of 5 minutes or until uniform.
- Allow to stand 5 minutes after mixing and then mix again for a minute, prior to application.
- Enviro Epoxy B-LV can only be applied using a brush or roller, ensuring uniform coverage over the prepared substrate.
- Enviro Epoxy B-LV has a pot life of 40 minutes at 25°C and 50% RH, mixed product should not be used after this time.
- Enviro Epoxy B-LV can be over coated after a minimum of 16 hours, assuming 25°C and 50% RH.
- Do not exceed 24-hour cure time before over coating, assuming 25°C and 50% RH.
- Do not apply Enviro Epoxy B-LV, where:
    - Moisture content of the substrate exceeds 20%
    - Substrate temperature falls below 5°C, or exceeds 45°C
    - Rain is anticipated within 8 hours of application.

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## Mixing

- Enviro Epoxy Ultra Tuff is supplied in pre proportioned kits ready for mixing, it is critical that only full kits are mixed. Mix Part A with Colour pack(s) until uniform colour, then add Part B and mix with a mechanical mixer at low speed with a suitable mixing paddle attached. Mix for 5 minutes or until uniform with a mechanical mixer at low speed (less than 400 RPM) prior to application.

## Application

- Enviro Ultra Tuff should be applied by roller or brush, to the prepared and primed substrate.
- Do not apply Enviro Ultra Tuff, where:
    - Substrate temperature falls below 50C, or exceeds 450C
    - Rain is anticipated within 16 hours of application.

- The coverage of Enviro Ultra Tuff will depend upon the weather, type of substrate and its condition. When prepared and primed in accordance with the instructions above, the following average coverage rates should be expected. Application: 6.7m2/L at 150µm DFT Practical Coverage is approximately 43 to 53m2/16L Kit when applying 2 coats at 150µm DFT per coat.
- Application is to be by accredited applicators only and strictly in accordance with the technical data sheet.

# Basic Requirements

## Materials

- All Envirosystems products delivered to a construction site shall be equipped with the correct original with the following information:
    - Product name.
    - Supplier information.
- All Envirosystems materials should be inspected upon its delivery to the construction site, the material can only be used after ensuring no damage or contamination.
- When transporting and storing Envirosystems products:
    - Stack the products separately according to product type and specifications.
    - Avoid exposure to sun and rain.
    - Keep well ventilated.
    - Control temperature, so as not to exceed 45°C.

## Application

- All applicators shall obtain sufficient and relevant training in floor coatings and the application of floor coatings.
- All scaffolding and installation infrastructure shall be installed in accordance with the relevant Australian Standard.
- The preparation and maintenance of the substrate shall be undertaken observing the design and standard requirements.
- Application of Envirosystems products should not occur during any form of precipitation, whilst experiencing winds greater than 40 km/h, whilst the temperature is below 5°C.
- A quality control assessment shall be completed, with full inspection and completed records indicating that the various installation procedures have been completed to a satisfactory level.
- Ensure that all installation contractors are wearing the correct Personal Protective Equipment (PPE), as per product and site requirements.
- Contractor ITP’s to be adhered to and hold points signed off.

# Quality Inspection & Assurance

## General Requirements

The approved waterproofing applicators Inspection Test Plan is to be followed and all hold points, and inspections, are to be recorded and sign off prior to subsequent works commencing.

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