



Enviro HP1200

APPLICATION METHOD STATEMENT



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Introduction

The Enviro HP1200 system is a high-performance waterproofing membrane specifically designed for demanding external waterproofing applications.

Enviro HP1200 is a two-component, spray-applied, solvent-free, flexible polyurethane membrane composed of 100% solids. It is engineered to deliver superior elongation, high tensile strength, and exceptional tear resistance, along with outstanding abrasion resistance and long-term durability.

This membrane has been independently tested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and meets all performance criteria outlined in AS 4654.1:2012 for external above-ground waterproofing.

The following sections provide comprehensive instructions for the preparation of substrates and the correct installation procedures for Enviro HP1200.

General Information

This installation manual has been developed by EnviroSystems Technologies to support the structured and consistent application of EnviroSystems waterproofing systems, with the objective of ensuring optimal product performance and quality control.

The design and installation of waterproofing membranes must be executed in accordance with applicable Environmental Protection Authority (EPA) regulations and all relevant statutory and legislative requirements.

The procedures and parameters detailed herein are intended to serve as general application guidelines and should be interpreted as such. This document does not supersede operational protocols or contractual requirements. All over coat times within this document are based on the temperature being 25°C and 50% RH. Different temperature conditions can affect the curing times.

EnviroSystems Technologies accepts no liability for any damage, failure, or deficiency resulting from improper handling, installation, or subsequent modification of the products by any third party.

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Product Specification

Component	Details
Substrate	Enviro HP1200 can be applied over the following suitably prepared substrates: • Concrete • Blockwork (flush joints)
Patching	<u>Enviro Epoxy B-NS</u> • Solvent Free, Thixotropic skimming and priming epoxy. • Applied by trowel, skimming across the substrate.
Primer Coat	<u>Enviro Epoxy B</u> • Primer coat to promote adhesion. • Applied at a rate of 0.16L /m² to a minimum dry film thickness (DFT) of 0.15mm. • 2 coats of Enviro Epoxy B maybe required if application is direct to porous concrete or blockwork substrate.

Flexible Sealant	<u>Enviro Flex FL / FC</u> • General purpose polyurethane sealant recommended for use under waterproofing membranes. • 15mm x 15mm fillets applied as per AS4654.2.
Waterproofing Membrane	<u>Enviro HP1200</u> • High Performance, Solvent Free, Plural Component Sprayed Elastomer Waterproofing Membrane. • Applied at a rate of 1.6kg /m² to a minimum dry film thickness (DFT) of 1.5mm.
Drainage	<u>Enviro H Cell (horizontal) or Enviro V Drain (vertical)</u> • High flow drainage for below grade and planter boxes.

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 to achieve a concrete surface profile (CSP) of CSP2/CSP3.
- Moisture content < 4.5%.

PATCHING

Epoxy B-NS

- Enviro Epoxy B-NS is supplied in pre-weighed packages, of Part A- 20 Litres and Part B- 10 Litres. It is essential that all the hardener (Part B) is added to the entire resin component (Part A) to ensure that the correct mixing proportions are maintained (3 to 1, A: B, by volume).
- Combined components should then be thoroughly mixed using a mechanical stirrer with a paddle attachment for a minimum 5 minutes.
- Once fully mixed, Enviro Epoxy B-NS should be immediately applied by squeegee, trowel, roller or brush, to the prepared substrate to ensure that all imperfections are filled sufficiently.
- Enviro Epoxy B-NS 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-NS can be over coated after a minimum of 6 hours, assuming 25°C and 50% RH.

PRIMER COAT

Enviro Epoxy B

- Enviro Epoxy B is supplied in pre-weighed packages, of Part A- 12 Litres and Part B- 4 Litres. It is essential that all the hardener (Part B) is added to the entire resin component (Part A) to ensure that the correct mixing proportions are maintained (3 to 1, A: B, by volume).
- Combined components should then be thoroughly mixed using a mechanical stirrer with a paddle attachment for a minimum of 5 minutes.
- Once fully mixed, Enviro Epoxy B should be immediately applied by roller or brush, to the prepared substrate to ensure that all imperfections are filled sufficiently.
- Enviro Epoxy B has a pot life of 25-30 minutes at 25°C and 50% RH, mixed product should not be used after this time.
- Enviro Epoxy B can be over coated after a minimum of 6 hours and a maximum of 24 hours, assuming 25°C and 50% RH. Refer to Enviro Epoxy B TDS for other temperature conditions.

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Mixing

- Enviro HP1200 is supplied in pre-weighed packages, of Part A- 23kg and Part B- 20kg. Mixing is by way of 1:1 mix ratio (by volume) in heated plural component spray equipment such as Graco E-10 or EXP-2.

Application

- Enviro HP1200 application is to be by accredited / trained applicators only.
- Minimum application thickness is to be 1.5mm DFT.
- Application is to be by accredited applicators only and strictly in accordance with the technical data sheet
- HP1200 is to be finished to a taped day joint termination at the required thickness and not feather edged. All terminations, penetrations and joints are to be in accordance with Envirosystems waterproofing details or project specific details (where provided).
- Do not apply Enviro HP1200, where:
 - Substrate temperature falls below 5°C, or exceeds 45°C
 - Rain is anticipated within 2 hours of application.

Re-Coating

- Enviro HP1200 can be directly re-coated within <4 minutes and 3 hours of application, assuming 25°C and 50% RH.
- If 24 hours cure is allowed before re-coating (assuming 25°C and 50% RH), abrade the overlap section of Enviro HP1200 by mechanical means, solvent wipe with Enviro Thinners No1 and apply Enviro Shield over the HP1200 that is to be lapped to.

DRAINAGE APPLICATION

Enviro H Cell drainage

- Position the cells: Lay Enviro H Cell drainage modules directly on top of the membrane. The modules interlock with each other to form a continuous drainage layer.
- Interlock & fit: Connect adjacent modules by interlocking edges or butting them together; cut modules as needed to suit edges or corners.
- Add protection: Cover the installed drainage layer with a layer of geotextile fabric to prevent soil ingress.
- Backfill: Spread a thin layer of coarse sand over the geotextile, then add planting soil and plants as required.

Enviro V Drain

- Lay directly on waterproofing: Place the Enviro V Drain modular trays or dimple board directly over the finished waterproofing surface.
Connect trays/sheets: Interlock adjacent trays/sheets to cover the entire area; trim to fit edges or corners where necessary.
Secure and protect: Ensure trays sit flat and are secured if needed; peripheral fixing may be used in some installations.
Final covering: Add growing media/soil on top for plant establishment.

Product Application Summary Table

	Product	Dry Film Thickness (min)	Minimum Overcoat	Maximum Overcoat
Patching	Enviro Epoxy B-NS	Skim coat	6 hours	24 hours
Primer Coat	Enviro Epoxy B	0.16mm	6 hours	24 hours
Joint Sealant	Enviro Flex FL / FC	N/A	Manufacturers Recommendations	
Membrane	Enviro HP1200	1.5mm	N/A	3 hours
Drainage	Enviro H Cell / Enviro V Drain	N/A	N/A	N/A

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 waterproofing and the application of waterproofing membranes.
- 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.
- All embedded pipe fittings shall be embedded in advance in accordance with the design and standard specifications. All embedded pipe fittings should be sufficiently sealed prior to installation of the membrane.
- 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.
- Backfilling against retaining walls to be done not less than 24hrs after application of Enviro HP1200 and not to include the pull off adhesion test zones (as membrane in this areas requires 72hrs cure before testing).

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.

Pull off adhesion testing

- 2 pull off adhesion tests are required per wall.
- Pull off adhesion testing to be conducted after Enviro HP1200 is allowed to cure for a minimum of 72hrs.

Repairing damage after pull off adhesion testing

1. Mark out section to be repair (minimum 150mm square cut out)
2. Grind back to substrate (removal of any residual araldite, primer or membrane that may be remaining after removal from adhesion testing) including lightly abrading surrounding unaffected membrane.
3. Solvent wipe of newly grinded substrate to remove remaining laitance and contaminants.
4. Apply Enviro Shield as primer (allow curing as per Product TDS) to the substrate including 150mm lap over existing unaffected membrane.
5. Spray Enviro HP1200 (as per Product TDS) to the applied primer.

Contact Envirosystems

NEW SOUTH WALES - HEAD OFFICE

Ground Floor, 295 Princes Highway, St Peters NSW 2044 | info@envirosystems.com.au

QUEENSLAND

Unit 3, 28 Burnside Road, Yatala QLD 4207 | info@envirosystems.com.au

VICTORIA

49 Wood Street, Thomastown VIC 3074 | info@envirosystems.com.au

WESTERN AUSTRALIA

78 Discovery Drive, Bibra Lake WA 6163 | perth@envirosystems.com.au PHONE 1300
WATERPROOF (928 377)