



Enviro 700X + Drainage + 950TC

APPLICATION METHOD STATEMENT

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Introduction

Enviro 700X is a single component, low odour polyurethane elastomer waterproofing membrane. Enviro 700X, once applied on vertical or horizontal applications, both internally and externally forms a seamless, durable and flexible membrane which protects structures from water penetration.

FEATURES

- Flexible
- Seamless
- AS/NZS 4858:2004 Class 3 Approved
- Immersion tolerant
- Durable
- Remains flexible at low temperatures
- Low VOC content
- Single Component
- Chemically resistant

Enviro 700X is uniquely formulated to provide high elasticity, tensile and tear strengths while also possessing excellent abrasion resistance. Enviro 700x has been independently tested by the CSIRO and passes all requirements for AS4654.1:2012 (external area waterproofing).

Enviro 700X can be used in conjunction with Enviro 950TC.

The following pages provide specific information on the preparation and installation of Enviro 700X.

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 700X 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 700X</u> • Enviro 700X is a single component, low odour polyurethane elastomer waterproofing membrane. • It is to be applied in 2 coats to a minimum dry film thickness of 1.5mm needed.
UV Topcoat (Only for areas exposed to UV)	<u>Enviro 950TC</u> • Two-component 100% solids Aliphatic Polyurethane, UV coating, designed using the latest generation polyurethane technologies. • Applied at a rate of 0.23L /m² per coat to a minimum dry film thickness (DFT) of 0.22mm. 2 coats required for a total DFT of 0.440mm.
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%.
- Falls in substrate should be as per AS4654.2 which is 1:100.

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.

ENVIRO 700X APPLICATION

Mixing

- Thoroughly mixed using a mechanical stirrer with a paddle attachment for a minimum of thirty seconds.

Application

- Enviro 700x should be applied by squeegee, roller or brush, to the prepared and primed substrate.
- Do not apply Enviro 700x, where:
 - Substrate temperature falls below 5°C, or exceeds 45°C
 - Rain is anticipated within 16 hours of application.

Re-Coating

- Enviro 700x is generally able to be re-coated within 16-24 hours of application, assuming 25°C and 50% RH.
- Do not exceed 72hour cure time before re-coating, assuming 25°C and 50% RH. When this time frame is exceeded, contact Envirosystems for recommended methodology.

ENVIRO 950TC APPLICATION

Mixing

- Begin by pouring the Enviro 950 TC colour pack into Enviro 950 TC Part B. Mix for 3 minutes at 300 rpm. Then, add Part A to the mixture and continue mixing for another 3 minutes at 300 rpm. Allow the mixture to rest for 1 minute before use for optimal results.
- The pot life of Enviro 950TC is approximately 30 minutes at 25°C.

Application

- Ensure the application of Enviro 950TC over Enviro 700X is within the overcoat window specified on the Enviro 950TC product data sheet (i.e. 10 minutes to 3 hours at 25°C and 55%RH). If this overcoat window is missed, the Enviro 700X is required to be solvent wiped and a coat of Enviro Prime P2 applied prior to Enviro 950TC application.
- Ensure the Enviro 700X surface to be coated with Enviro 950TC is free of all contaminants such as dust, grease, water etc.
- Use short nap (5-6 mm) mohair roller lint free. Do not apply in damp or wet conditions. Do not apply at low temperatures <5°C, as curing will be delayed. NOTE: Allow each coat to sufficiently dry before proceeding to the next coat. A thicker coat will take longer to dry.
- Shade the work area, and keep product stored in cool conditions out of direct sunlight. In cold weather, keep all products stored out of the cold, especially products not intended to be frozen. Warming materials to around 30°C can help but products may react to the substrate temperature rapidly when applied
- Apply each coat (2 coats required) at 0.23L/m² per coat to a DFT of 220 microns per coat.
- Refer to the below table for the minimum and maximum recoating of Enviro 950TC over Enviro 950TC.

Temperature	Minimum recoat	Maximum recoat
10°C @ 50%RH	4 hours	48 hours
15°C @ 50%RH	3 hours	24 hours
25°C @ 50%RH	2 hours	24 hours

If maximum recoat time between coats of 950TC is exceeded, abrade and reactivate with Enviro Thinner No. 1, apply Enviro Prime 789 then Enviro 950 TC topcoat.

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 700X	1.5mm	12 hours	72 hours
UV Topcoat	Enviro 950TC	0.44mm	2 hours	24 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 72hrs after application of Enviro 700X.

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.

Contact Envirosystems

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