

Enviro BSM

FULLY BONDED BLINDSIDE MEMBRANE

Enviro BSM is a pre-applied composite HDPE sheet membrane system that is designed to waterproof the blindside of concrete slabs and walls. Enviro BSM incorporates three unique layers, a heavy-duty HDPE layer, a pressure sensitive adhesion layer and a weather and trafficable resistant protective layer. When installed, this unique layered system provides a fully bonded waterproofing membrane to encapsulate the concrete structure, thus preventing water ingress or migration.

FEATURES AND BENEFITS

- Fully bonded
- Chemical and gas resistant
- Fully adhered lap joints
- Pre-applied
- Easy application
- Trafficable
- Steel and concrete placement can be immediate

APPLICATION SOLUTIONS

Can be applied to a variety of substrates, new and existing.

- Concrete foundations
- Concrete walls
- Concrete slabs on ground
- Swimming pools
- Lift pits
- Below grade water tanks
- As a methane gas barrier

PRODUCT INFORMATION

Packaging: Available in 1m (w) x 20m (L) x 1.5mm thickness.

Colour: White HDPE with mixed colour protective layer.

Shelf life: Enviro BSM can be stored in its original sealed condition in controlled environments.

Storage: Enviro BSM should be stored upright (not laying down) in dry, cool conditions out of direct UV and weather. Maximum storage temperature is 45°C.



WATERPROOFING



Directions for Use

SUBSTRATE PREPARATION

The substrate should be dry, clean, sound and even, thus preventing movement or subsidence during concrete placement.

The substrate in which BSM is to be installed should have no protrusions, gaps or voids greater than 10mm. Penetrations such as plumbing and electrical pipes should be stabilised to prevent movement during membrane and concrete placement.

For horizontal membrane placement, ensure that the substrate is sound, especially when installing over compacted fill so to avoid displacement from traffic or pouring of concrete. For vertical placement, ensure substrate is sound to provide required support for membrane during concrete placement.

APPLICATION

Horizontal applications

For horizontal applications, Enviro BSM should be placed with the coloured protective layer facing upwards and the white HDPE layer facing the substrate. Stagger end laps of each run to avoid a build-up of layers.

Overlap each previous sheet by 75mm ensuring membranes overlap edge is positioned correctly. Ensure the back of each subsequent roll is clean prior to overlapping and once in place remove the plastic film (on the overlap section) to bond the sheets together. Ensure a complete bond with no creases by using a heavy roller across overlap areas. Once overlap bond is complete the plastic film can be completely removed.

Vertical applications

For vertical applications, Enviro BSM should be mechanically fixed to the substrate using (substrate dependent) fixings with the coloured protective layer facing the concrete pour. These fixings should only be placed in the overlap section of the membrane and have a low-profile head so that the sheet overlaps can lay flat and rolled evenly for optimum adhesion.

Overlapping in vertical applications should be done in the same manner as horizontal applications ensuring subsequent sheet is overlapped by 75mm, adhered, and mechanically fixed correctly before proceeding with the next. The plastic film can be removed immediately in vertical applications. All cut edges and roll ends should be overlapped by 75mm, be clean and dry and sealed with Enviro BSM Seam Tape.

REPAIRS

If Enviro BSM is damaged during formwork or steel reinforcing placement it may be necessary to repair prior to pouring of concrete.

Enviro BSM Seam Tape can be used to repair any cuts or punctures <10mm. For larger repairs, cut a patch of Enviro BSM to fit across repair zone ensuring the patch overlaps a minimum of 150mm past damaged area. Repair patch should then be sealed with Enviro BSM Seam Tape as per recommended cut edge detailing.

CONCRETE PLACEMENT

Concrete should be poured within 30 days of Enviro BSM application. If pour is outside these 30 days, please consult Enviro systems for recommendations. Concrete placement and consolidation should be done in a manner (no sharp instruments) so to not damage the membrane.

FORMWORK REMOVAL

It is important not to remove formwork until the concrete has sufficient compressive strength to develop the required adhesion with Enviro BSM. Early removal of formwork may result in displacement of Enviro BSM and or concrete damage. A minimum concrete compressive strength of 10N/mm² is recommended prior to removing formwork.

LIMITATIONS

Do not leave exposed for over 30 days. Store in dry and cool conditions out of direct sunlight and inclement weather.

Product Data

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	RESULTS
Watertightness	EN1928:2001	Pass
Reaction to Fire	EN16501-1 +A1:2009	Class E
Joint Peel Pressure	EN12316-2:2013	764N/50mm
Tensile Strength - Longitudinal	EN12311-2:2013	1037N/50mm
Tensile Strength - Transverse	EN12311-2:2013	1007N/50mm
Elongation at Rupture – Longitudinal	EN12311-2:2013	627%
Elongation at Rupture – Transverse	EN12311-2:2013	432%
Resistance to Static Loading	EN12730:2001	20kg
Adhesion to Concrete	ASTM D903	30.4lbs/in
Peel Adhesion to Concrete	ASTM D903-98	5001N/m
Puncture Resistance – Top Down	ASTM D4833	291N
Puncture Resistance – Bottom Up	ASTM D4833	412N
Puncture Resistance	ASTM E154	159lbs
Hydrostatic Head Pressure	ASTM 5385	70m
Hydrostatic Pressure Resistance	ASTM D751	192psi
Water Vapour Transmission	ASTM E96	0.00935g/h.m ²
Water Vapour Permeance	ASTM E96	0.091 Perms
Resistance to Impact	EN12691	0.7m
Resistance to Tearing - Longitudinal	EN12310-2:2001	556N
Resistance to Tearing - Transverse	EN12310-2:2001	705N
Against Chemicals	EN1928:2000	Pass
Tensile and Elongation	ASTM D412	Pass
Resistance to Decay (Weight Loss)	ASTM E154	0.80%
Low Temperature Flexibility	ASTM D1970	-29°C
Resistance to Damage by Flexing	AS 4878.9 Part B	Pass
Methane Permeance	ASTM D1434	30.4cm ³ /m ² .Atm.day
Water Absorption	ASTM D570	0.06%
Analysis for Asbestos	AS 4964:2004	Nil detected

COVERAGE RATES

Roll width: 1m

Roll length: 20m

Total thickness: 1.5mm



Contact EnviroSystems

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PHONE

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HEALTH & SAFETY ADVICE

Enviro BSM is non-hazardous according to Safe Work Australia criteria, however, as a precaution, always provide good ventilation when applying. Wear gloves and eye protection. If irritation is experienced seek medical advice. Refer to the Safety Data Sheet for full safety and handling procedures

NOTE: Safety Data Sheets are available upon request.

KEEP OUT OF REACH OF CHILDREN

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this publication is based on the present state of our best knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

NOTE: Field service where provided, does not constitute supervisory responsibility. Suggestions made by EnviroSystems either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not EnviroSystems are responsible for carrying out procedures appropriate to a specific

NOTE: All products manufactured by EnviroSystems comply with the description and properties indicated in the technical data sheet that was current at the date of manufacture.