



## e.shield 110b



### Product Description

**Basic Use:** e.shield 110b is designed to provide maximum protection and redundancy to E.Series systems requiring high performance building protection. Installed on over excavated walls, e.shield 110b embodies the redundant field installed composite design concept by leveraging the waterproofing and protection benefits of a high density polyethylene (HDPE) backing with the self-healing characteristics of a continuous bentonite layer. When combined in a E.Series system assembly, e.shield 110b provides system unparalleled protection and redundancy.

**Composition:** e.shield 110b is a black and gray redundant geocomposite bentonite membrane comprised of two distinct layers. The membrane consists of an HDPE film chemically bonded to a layer of sodium montmorillonite bentonite.

### Benefits

- Confines bentonite within membrane assembly to provide a redundant self-sealing layer
- High puncture resistance protects waterproofing from subsequent construction damage
- When sealed properly, pre-activation prior to concrete placement will not occur

### Limitations

- Should not be stored in the rain
- Contaminated groundwater may inhibit performance and compatibility testing is required on all sites where contamination might be of concern.

### Technical Data

**Properties:** See physical properties table

**Coverages:** One roll covers 120.25 square feet, not including overlaps or waste.

**Specification Writer:** Contact EPRO before writing specifications on this product. E.Series system assemblies should be reviewed in order to meet project specific site conditions.

### Installation

**Preparation:** Please refer to manufacturer's specifications for substrate requirements. Rolls should be inspected for cosmetic damage prior to application. E.Shield 110b may be applied over a nominally cured e.spray membrane.

**Application:** Please refer to manufacturer's specifications. Install e.shield 110b protection course vertically with the bentonite layer facing the e.spray and the smooth HDPE side facing away from the wall. Overlap all seams a minimum of 3" with seam overlap detail per project specification while taking into account anticipated weather conditions.

### Availability and Packaging

Contact EPRO sales representative for local distributors or authorized applicators ([www.eproinc.com](http://www.eproinc.com)).

**Roll Size:** 3.25' x 37' rolls, 72 lbs.

### Warranty

**Limited Warranty:** EPRO Services, Inc. believes to the best of its knowledge that performance tables are accurate and reliable. EPRO warrants this product to be free from defects. EPRO makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. EPRO's liability shall be limited in all events to supplying sufficient product to retreat the specific areas to which defective product has been applied. EPRO shall have no other liability, including liability for incidental or resultant damages, whether due to breach of warranty or negligence. This warranty may not be modified or extended by representatives of EPRO or its distributors.

### Equipment

No equipment is necessary. Secure e.shield 110b protection course seams with e.tape 106.

### Technical Services and Information

Complete technical services and information are available by contacting EPRO at 800.882.1896 or [www.eproinc.com](http://www.eproinc.com).

This product was formally known as Ecoshield-EB.



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## Typical Physical Properties

Physical Property	Test Method	Value
Film Material.....		HDPE
Film Color.....		Black
Bentonite .....		Sodium Montmorillonite
Weight.....		0.6 lb per ft <sup>2</sup> (4.89 kg/m <sup>2</sup> )
Puncture Resistance .....	ASTM E154-88 SEC 10 .....	170 lbs. (77.3 kg)
Tensile Strength .....	ASTM D882.....	6100 psi
% Elongation at Break.....	ASTM D882.....	100%
Crack Bridging.....		1/8" (.032 cm) crack
Resistance to Hydrostatic Head .....	ASTM D751 Procedure A .....	174 ft. (52.9 m) of water
Water Vapor Permeability.....	ASTM E96-80 .....	0.53x10 <sup>-3</sup> cm/sec
Resistance to Microorganisms.....	ASTM E154-88 SEC 13 .....	Unaffected
Freeze/thaw Cycles .....		Unaffected
Installation temperatures .....	ASTM D746 & D1238 .....	-40°F to 150°F (-40°C to 65.5°C)

Dimensions: 3.25' x 37'

Weight: 72 pounds