E.Protect Shoring is a redundant field-installed composite waterproofing, methane gas, and vapor intrusion barrier for below-grade pre-applied vertical wall protection. Designed for projects requiring a high level of performance with some budget constraints. E.Protect Shoring leverages three key waterproofing materials: high density polyethylene (HPDE), spray applied polymer modified asphalt (PMA), and bentonite, to create redundancy against a wide range of project conditions and chemicals of concern.

E.Protect Shoring is compatible with cast-in-place poured concrete or shotcrete, and when applied to different types of shoring methods including soldier pile, back lagging, shotcrete soil nail, internal rakers, caissons, secant walls, and sheet piles.

**DESCRIPTION**

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**BENEFITS**

- **Chemically Resistant.** Provides a high level chemical resistance to a wide range contaminants commonly found in soil and groundwater.
- **Redundant:** Three layers of different waterproofing materials create a composite system that is superior to the materials used on their own.
- **Seamless.** Composite field-installed membranes do not contain a continuous seam.
- **Building Integration:** Fully integrates and bonds with vertical foundation wall.
- **Fast Installation:** Less weather sensitivity compared to comparable competitive systems, and does not require additional protection prior to the placement of concrete.

**LIMITATIONS**

- **This system configuration does not include a thermally welded base sheet.**
- **Sites with brackish water and/or contamination will require compatibility testing to determine the appropriate use of bentonite.**
- **Extreme weather conditions can impact installation methodology.**

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**System: E.Protect**

**Former System Name: System III-LWB**

**Application: Shoring**

**System Thickness: 178 mils without e.drain 6000**

<table>
<thead>
<tr>
<th>1st Layer</th>
<th>2nd Layer</th>
<th>3rd Layer</th>
<th>4th Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>e.drain 6000</td>
<td>e.base 205</td>
<td>e.spray 80 mils</td>
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<tr>
<td>Former Name</td>
<td>Ecodrain-S 6000</td>
<td>Ecoshield-P</td>
<td>Ecoline-S</td>
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**SPECIFICATIONS, DRAWINGS, AND TECHNICAL ASSISTANCE**

The most current specifications and drawings can be found on www.eproinc.com. For project specific details contact EPRO directly, or the local EPRO representative.

Site conditions, performance goals, and budget determine which system is more appropriate for a given project. For more information regarding product performance, testing, plan review, or general technical assistance, please contact EPRO.

**WARRANTY**

EPRO provides a wide range of warranty options for E.Series systems. For a project to be eligible for any warranty option beyond a 1-year material warranty, an EPRO Authorized Applicator must be used and the project must be registered and approved by EPRO prior to the commencement of any product application.

Warranty options available for this system include:
- Material warranty
- E.Series Labor and Material Warranty
- E.Assurance No-Dollar-Limit Warranty

For information relating to EPRO’s E.Assurance warranty program, contact EPRO. All E.Assurance no-dollar-limit labor and material warranties are approved on a project by project basis. E.Assurance warranties are available for deck applications when E.Series systems are used on the below-grade envelope.

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>TEST METHOD</th>
<th>VALUE</th>
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<tbody>
<tr>
<td>Tensile Strength</td>
<td>ASTM D412</td>
<td>462.9 psi</td>
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<tr>
<td>Elongation</td>
<td>ASTM D412</td>
<td>735%</td>
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<tr>
<td>Adhesion to Concrete</td>
<td>ASTM D903</td>
<td>8 lbf/in</td>
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<tr>
<td>Puncture Resistance</td>
<td>ASTM D1709</td>
<td>447.1 lbf</td>
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<tr>
<td>Hydrostatic Head Resistance</td>
<td>ASTM D5385</td>
<td>100 psi (231 ft)</td>
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<tr>
<td>Water Vapor Transmission</td>
<td>ASTM E96</td>
<td>.033 perms</td>
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