SHOREBLOCK® BD is a flexible, interlocking matrix of concrete blocks of uniform size, shape and weight connected by a series of cables which pass longitudinally and laterally through preformed ducts in each block. SHOREBLOCK® BD revetment systems combine the favorable aspects of lightweight blankets and meshes, such as porosity, flexibility, vegetation encouragement and habitat enhancement with non-erodible, self-weight and high tractive force resistance of a rigid lining.

SHOREBLOCK® BD has proven to be an aesthetic and functional alternative to rip-rap, poured concrete and other heavy-duty erosion protection systems. SHOREBLOCK® BD is easy to install, therefore, can dramatically reduce overall project costs. More specifically, when compared to other systems, life-cycle costs have been reduced because SHOREBLOCK® BD is a permanent system and saves on subsequent maintenance expenses.

### Research and Design

SHOREBLOCK® BD is the most durable, effective and environmentally-friendly erosion control revetment method of fighting severe erosion problems. SHOREBLOCK® BD mats are available in eight foot widths in lengths up to 40 feet. Mats can be joined to achieve greater lengths. Different sizes of SHOREBLOCK® BD are available depending on the severity of the application. In most markets, Articulated Concrete Blocks (ACBs) are competitive in cost to 12” diameter (or greater) rock (or rip-rap) placed in an 18” or greater blanket thickness, are competitive with gabion mattresses and ACBs are typically more economical than poured concrete.

ACBs were successfully tested by the U.S. Bureau of Reclamation and U.S. Federal Highway Administration (FHWA-RD-89-199). The Corps of Engineers has used ACBs on numerous designs for both channel and shoreline stability. Comprehensive wave tank testing was evaluated in 1983 at Oregon State University. ACB installations have been performing successfully since 1980.

### SHOREBLOCK® BD Design Advantages

- Each block has an open area up to 20% to allow for superior hydrostatic relief and ecologically pleasing vegetation cover.
- Each block style is made for a complete system.
- Interlocking cabling allows greater flexibility through the axes of articulation — conforms better to ground contours and settlement.
- Prefabricated mats are quick installation even underwater.
- Tests have shown that the force needed to remove a block from a revetted cover layer may be equal to 20 times the weight of the block.
- The block will not suffer loss of function due to chemical degradation throughout its design life.

### Specifications

SHOREBLOCK® BD mattresses are pre-assembled to the size specified for the project. Fabrication of a SHOREBLOCK® BD mat is accomplished by threading polyester cable in both directions through a series of blocks. Cables are sized to provide a 5 to 1 cable strength to mat weight ratio to ensure safe handling while providing extraordinary strength in the system. Polyester cables used in brackish water applications for over a decade have shown a strength loss of less than 2%. SHOREBLOCK® BD concrete units are manufactured with tapered sides and a notch and key unit interlocking system. SHOREBLOCK® BD can be installed on virtually any slope angle, however, each case should be evaluated to account for site soil conditions and anchoring requirements.

### Dimensions

<table>
<thead>
<tr>
<th>Block Class</th>
<th>Dimensions In</th>
<th>Unit Weight Lbs</th>
<th>System Weight Lbs/Sq.Ft</th>
<th>Open Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD-4000 SC</td>
<td>5.00 x 15.875 x 15.875</td>
<td>66.72</td>
<td>97.40</td>
<td>1.78</td>
</tr>
<tr>
<td>BD-4500 SC</td>
<td>5.00 x 15.875 x 15.875</td>
<td>68.54</td>
<td>99.57</td>
<td>1.78</td>
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<tr>
<td>BD-5000 SC</td>
<td>5.00 x 15.875 x 15.875</td>
<td>69.25</td>
<td>99.57</td>
<td>1.78</td>
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<tr>
<td>BD-6000 SC</td>
<td>5.00 x 15.875 x 15.875</td>
<td>70.96</td>
<td>102.22</td>
<td>1.78</td>
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<td>BD-7000 SC</td>
<td>5.00 x 15.875 x 15.875</td>
<td>71.68</td>
<td>104.41</td>
<td>1.78</td>
</tr>
<tr>
<td>BD-8000 SC</td>
<td>5.00 x 15.875 x 15.875</td>
<td>72.40</td>
<td>108.00</td>
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</tr>
<tr>
<td>BD-9000 SC</td>
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<td>73.12</td>
<td>111.59</td>
<td>1.78</td>
</tr>
</tbody>
</table>

*BD Series comes in Bi-Directional Cable System. Additional sizes and styles are available in some areas. Check with your local SHOREBLOCK® representative for product availability.

### SHOREBLOCK® BD Units

Each block is interconnected by flexible cables, providing articulation between adjacent blocks.

### Quality Product

Woven monofilaments are preferred over nonwoven geotextile because of their high hydraulic conductivity and durability. The soil’s particle size (among other factors) will ultimately determine the fabric selection.

### Easy Transportation

### Easy Handling