OUTFLOW MAT™

The ADS Outflow Mat is a woven turf reinforcement mat which provides permanent soil erosion control. The mat replaces hard-armor products, such as rip-rap. The Outflow Mat will protect against erosion and scour at the culvert outlet and allow vegetative growth. The lightweight mat is easily installed and does not require heavy construction equipment.

**PET underlayment required if full vegetation is not anticipated. Size of underlayment is based on pipe diameter and flow required.**

<table>
<thead>
<tr>
<th>Pipe Diameter (mm)</th>
<th>Apron Length x Width (m)</th>
<th>Number of Pins or Anchors Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 in. (300 mm)</td>
<td>4' x 5' (1.2 x 1.5 m)</td>
<td>1/21</td>
</tr>
<tr>
<td>15 in. (375 mm)</td>
<td>6' x 7' (1.8 x 2.1 m)</td>
<td>1/30</td>
</tr>
<tr>
<td>18 in. (450 mm)</td>
<td>7' x 9' (2.1 x 2.7 m)</td>
<td>1/35</td>
</tr>
<tr>
<td>24 in. (600 mm)</td>
<td>11' x 13' (3.4 x 4.0 m)</td>
<td>1/57</td>
</tr>
<tr>
<td>30 in. (750 mm)</td>
<td>13' x 16' (4.0 x 4.9 m)</td>
<td>1/71</td>
</tr>
<tr>
<td>36 in. (900 mm)</td>
<td>18' x 21' (5.4 x 6.4 m)</td>
<td>1/120</td>
</tr>
<tr>
<td>42 in. (1050 mm)</td>
<td>21' x 25' (6.4 x 7.6 m)</td>
<td>1/173</td>
</tr>
<tr>
<td>48 in. (1200 mm)</td>
<td>24' x 28' (7.3 x 8.5 m)</td>
<td>1/282</td>
</tr>
<tr>
<td>60 in. (1500 mm)</td>
<td>32' x 37' (9.8 x 11.3 m)</td>
<td>1/449</td>
</tr>
</tbody>
</table>

* Calculated from Greenville County (SC) Stormwater Management Figure 8-6 for Minimum Tail Water Condition. Apron length and width is under the assumption that pipe is flowing at full capacity.

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**DETAIL 1 - ANCHOR PLACEMENT DENSITY**

* *Dimensions are dependent on pipe diameter, see table for proper sizes.*
ADS OUTFLOW MAT™ EROSION CONTROL BLANKET SPECIFICATIONS

SCOPE

This specification describes the ADS Outflow Mat Erosion Control Blanket.

REQUIREMENTS

ADS Outflow Mat Erosion Control Blanket is a 3-dimensional, lofty synthetic, erosion control mat, which provides bare soil retention, vegetation nurturing, and turf reinforcement. ADS Outflow Mat is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

<table>
<thead>
<tr>
<th>Mechanical Properties</th>
<th>Test Method</th>
<th>Unit</th>
<th>Typical Roll Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength MD x CD</td>
<td>ASTM D6818</td>
<td>lbs/ft (kg/m)</td>
<td>3000 x 3000 (4465 x 4465)</td>
</tr>
<tr>
<td>Retained Thickness</td>
<td>ASTM D6524</td>
<td>mils (mm)</td>
<td>300 (7.6)</td>
</tr>
<tr>
<td>Light Penetration</td>
<td>ASTM D6567</td>
<td>%</td>
<td>37</td>
</tr>
<tr>
<td>UV Resistance (2,000 hours)</td>
<td>ASTM D4355</td>
<td>% strength retained</td>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Properties</th>
<th>Test Method</th>
<th>Unit</th>
<th>Typical Roll Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass/Unit Area</td>
<td>ASTM D6566</td>
<td>oz/yd² (g/m²)</td>
<td>9.0 (305)</td>
</tr>
<tr>
<td>Thickness</td>
<td>ASTM D6525</td>
<td>mils (mm)</td>
<td>600 (15.2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance</th>
<th>Test Method</th>
<th>Unvegetated</th>
<th>6+ Weeks Vegetated</th>
<th>1+ Year Vegetated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shear Stress lb/ft² (Pa)</td>
<td>ASTM D6460 modified</td>
<td>2.7 (130)</td>
<td>7.4 (350)</td>
<td>13.3 (635)</td>
</tr>
<tr>
<td>Velocity ft/sec (m/sec)</td>
<td>ASTM D6460 modified</td>
<td>11.5 (3.5)</td>
<td>17.6 (5.4)</td>
<td>23.8 (7.3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Width x Length</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Width x Length - ft (m)</td>
<td>12’ x 75’ (3.7 x 22.9 m)</td>
<td></td>
</tr>
<tr>
<td>Square Yards Per Roll (m²)</td>
<td>100 (83.6)</td>
<td></td>
</tr>
</tbody>
</table>