### Synteen Geogrid

<table>
<thead>
<tr>
<th>Geogrid and Direction (MD, CD)</th>
<th>Polymer (PET, HDPE, PP)</th>
<th>Aperture Size (inches)</th>
<th>T&lt;sub&gt;ult&lt;/sub&gt; (lb/ft)</th>
<th>T&lt;sub&gt;2%&lt;/sub&gt; (lb/ft)</th>
<th>T&lt;sub&gt;5%&lt;/sub&gt; (lb/ft)</th>
<th>J&lt;sub&gt;ave&lt;/sub&gt; (lb)</th>
<th>J (m-N/deg)</th>
<th>RF&lt;sub&gt;CR&lt;/sub&gt;</th>
<th>RF&lt;sub&gt;D&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF55 (MD)</td>
<td>PET</td>
<td>0.87 x 1.00</td>
<td>5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.43</td>
<td>1.51</td>
</tr>
</tbody>
</table>

#### Borrow ($\Phi = 30^\circ$)

<table>
<thead>
<tr>
<th>Geogrid and Direction (MD, CD)</th>
<th>RF&lt;sub&gt;ID&lt;/sub&gt;</th>
<th>RF</th>
<th>T&lt;sub&gt;ult&lt;/sub&gt; (lb/ft)</th>
<th>C&lt;sub&gt;i&lt;/sub&gt;</th>
<th>F*</th>
<th>C&lt;sub&gt;ds&lt;/sub&gt;</th>
<th>$\tan \rho$ (deg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF55 (MD)</td>
<td>1.05</td>
<td>1.50</td>
<td>2.06</td>
<td>3330</td>
<td>2426</td>
<td>2426</td>
<td>0.67</td>
</tr>
</tbody>
</table>

#### Fine Aggregate ($\Phi = 34^\circ$)

<table>
<thead>
<tr>
<th>Geogrid and Direction (MD, CD)</th>
<th>RF&lt;sub&gt;ID&lt;/sub&gt;</th>
<th>RF</th>
<th>T&lt;sub&gt;ult&lt;/sub&gt; (lb/ft)</th>
<th>C&lt;sub&gt;i&lt;/sub&gt;</th>
<th>F*</th>
<th>C&lt;sub&gt;ds&lt;/sub&gt;</th>
<th>$\tan \rho$ (deg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF55 (MD)</td>
<td>1.05</td>
<td>1.50</td>
<td>2.06</td>
<td>3330</td>
<td>2426</td>
<td>2426</td>
<td>0.67</td>
</tr>
</tbody>
</table>

#### Coarse Aggregate ($\Phi = 38^\circ$)

<table>
<thead>
<tr>
<th>Geogrid and Direction (MD, CD)</th>
<th>RF&lt;sub&gt;ID&lt;/sub&gt;</th>
<th>RF</th>
<th>T&lt;sub&gt;ult&lt;/sub&gt; (lb/ft)</th>
<th>C&lt;sub&gt;i&lt;/sub&gt;</th>
<th>F*</th>
<th>C&lt;sub&gt;ds&lt;/sub&gt;</th>
<th>$\tan \rho$ (deg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF55 (MD)</td>
<td>1.55</td>
<td>2.22</td>
<td>3.04</td>
<td>2256</td>
<td>1643</td>
<td>1643</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Where,
- $T_{ult}$ = wide width tensile strength @ ultimate (lb/ft),
- $T_{2%}$ = wide width tensile strength @ 2% strain (lb/ft),
- $T_{5%}$ = wide width tensile strength @ 5% strain (lb/ft),
- $J_{ave}$ = average junction strength per rib (lb),
- $J$ = aperture stability modulus (m-N/deg),
- RF<sub>CR</sub> = creep reduction factor for 3, 75 and 100-yr design life,
- RF<sub>D</sub> = durability (degradation) reduction factor,
- RF<sub>ID</sub> = installation damage reduction factor,
- RF = ($RF_{CR} \times RF_{ID}$) for 3-yr design life or ($RF_{CR} \times RF_{D} \times RF_{ID}$) for 75 and 100-yr design life,
- $T_{ult}$ = short-term design strength for 3-yr design life or LTDS for 75 and 100-yr design life (lb/ft) = $T_{ult} / RF$,
- $C_i$ = coefficient of interaction,
- F* = pullout resistance factor = $C_i \tan \Phi$,
- $C_{ds}$ = coefficient of direct sliding and
- $\tan \rho$ = soil-geogrid friction angle (deg) = $C_{ds} \tan \Phi$. 