**STRATAGRID®** 

## **Product Data Sheet**

STRATAGRID® is a geogrid reinforcement for soil. These high performance geogrids are constructed of high molecular weight and high tenacity polyester yarns utilizing a complex knitting process and polymeric coating to provide superior engineering properties. STRATAGRID is engineered to be mechanically and chemically durable, in both the harsh construction installation phase and in aggressive soil environments (pH range from 3 - 9).

| Design Properties                            |                                    |  | Microgrid <sup>(1,2)</sup> | SG150 <sup>1)</sup> | SG200               | SG350               | SG500               | SG550                | SG650                 | SG700                 | SG1200                | SG1300                | SG1400                |
|--|------------------------------------|--|----------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Ultimate and Creep Limited Tensile Strengths |                                    |  |                            |                     |                     |                     |                     |                      |                       |                       |                       |                       |                       |
| Ultimate Strength <sup>(3)</sup> (MD)        | ASTM D 6637 Method<br>A Single-Rib | Pounds / Foot<br>(kilonewtons / meter) | <b>2,000</b> (29.2)        | <b>1,875</b> (27.4) | <b>3,600</b> (52.5) | <b>5,000</b> (73.0) | <b>6,400</b> (93.4) | <b>8,150</b> (118.9) | <b>10,000</b> (145.9) | <b>11,800</b> (172.2) | <b>13,704</b> (200.0) | <b>20,556</b> (300.0) | <b>27,408</b> (400.0) |
| Creep Limited Strength                       | ASTM D 5262<br>D 6992              | Pounds / Foot<br>(kilonewtons / meter) | <b>1,149</b> (16.8)        | <b>1,136</b> (16.6) | <b>2,323</b> (33.9) | <b>3,226</b> (47.1) | <b>4,129</b> (60.3) | <b>5,258</b> (76.7)  | <b>6,452</b> (94.0)   | <b>7,613</b> (111.1)  | <b>8,841</b> (129.0)  | <b>13,262</b> (193.5) | <b>17,683</b> (258.0) |
|  |                                    |  |                            |                     |                     |                     |                     |                      |                       |                       |                       |                       |                       |

| Long-term Design Strength (LTDS or T <sub>al</sub> ) <sup>(4)</sup> |  |                   |                   |                     |                     |                     |                     |                     |                     |                      |                       |                       |
|---|--|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|
|   |  |                   |                   |                     |                     |                     |                     |                     |                     |                      |                       |                       |
| Sands, Silt & Clay  | Pounds / Foot<br>(kilonewtons / meter) | <b>871</b> (12.7) | <b>939</b> (13.7) | <b>1,919</b> (28.0) | <b>2,666</b> (38.9) | <b>3,412</b> (49.8) | <b>4,346</b> (63.4) | <b>5,332</b> (77.8) | <b>6,292</b> (91.8) | <b>7,307</b> (106.6) | <b>10,960</b> (159.9) | <b>14,614</b> (213.2) |

| Physical Properties            |  |                       |                              |                               |                               |                               |                               |                               |                               |                               |                                  |                                  |                                  |
|--------------------------------|--|-----------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Roll Dimensions <sup>(5)</sup> | Roll Size A<br>(Width x Length)                | Feet<br>(meters)      | <b>8 x 225</b> (2.44 x 68.6) | <b>6 x 150</b> (1.83 x 45.7)  | <b>6 x 300</b> (1.83 x 91.4)  | <b>12.5 x 300</b> (3.8 x 91.4)   | <b>12.5 x 300</b> (3.8 x 91.4)   | <b>12.5 x 300</b> (3.8 x 91.4)   |
|                                | Roll Size B<br>(Width x Length)                | Feet<br>(meters)      | -                            | <b>12 x 150</b> (3.66 x 45.7) | <b>12 x 225</b> (3.66 x 68.6) | <b>12.5 x 200</b> (3.8 x 61)     | <b>12.5 x 200</b> (3.8 x 61)     | <b>12.5 x 200</b> (3.8 x 61)     |
| Area                           | Square Yards<br>(square meters)                |                       | <b>200</b> (167.2)           | <b>100/200</b> (83.6/167.2)   | <b>200/300</b> (167.2/250.8)  | <b>416.6/277.7</b> (347.3/231.8) | <b>416.6/277.7</b> (347.3/231.8) | <b>416.6/277.7</b> (347.3/231.8) |
| Product Weight <sup>(6)</sup>  | Ounces / Square Yard<br>(grams / square meter) |                       | <b>5.0</b> (169.5)           | <b>5.3</b> (179.7)            | <b>6.7</b> (227.2)            | <b>7.1</b> (240.7)            | <b>9.2</b> (311.9)            | <b>10.5</b> (356.0)           | <b>12.0</b> (406.9)           | <b>12.7</b> (430.6)           | <b>18.0</b> (610.3)              | <b>25.6</b> (868.0)              | <b>33.6</b> (1139.2)             |
| Weight per Roll <sup>6)</sup>  | Roll Size A<br>(Width x Length)                | Pounds<br>(kilograms) | <b>65</b> (29.5)             | <b>45</b> (20.4)              | <b>90</b> (40.9)              | <b>100</b> (45.4)             | <b>125</b> (56.7)             | <b>140</b> (63.6)             | <b>155</b> (70.3)             | <b>175</b> (81.6)             | <b>480</b> (218.2)               | <b>682</b> (310.0)               | <b>900</b> (409.1)               |
|                                | Roll Size B<br>(Width x Length)                | Pounds<br>(kilograms) | -                            | 95<br>(43.2)                  | 140<br>(63.6)                 | 155<br>(70.4)                 | 192<br>(87.3)                 | 215<br>(97.7)                 | 237<br>(107.7)                | 267<br>(121.4)                | <b>315</b> (142.9)               | <b>450</b> (204.1)               | <b>630</b> (285.8)               |

| Molecular Properties                |             |                           |        |  |  |  |  |  |  |
|-------------------------------------|-------------|---------------------------|--------|--|--|--|--|--|--|
| Item                                | Test Method | Unit                      | Spec   |  |  |  |  |  |  |
| Molecular Weight (min)              | GRI GG8     | grams / mole              | 25,000 |  |  |  |  |  |  |
| Caboxyl End Group (CEG) Count (max) | GRI GG7     | millequivalent / kilogram | 30     |  |  |  |  |  |  |

- 1. Denotes both machine and cross-machine direction strength (Biaxial Strength
- 2. Microgrid ultimate tensile strength determined in accordance with ASTM D 4595
- 3. Based on Minimum Average Roll Values for machine direction unless otherwise noted.
- 4. LTDS or T at = T ULT / (RFcreep x RFlinstallation damage x RFdurability) for sand, silt and clay soil Dmax  $\leq$  25mm,  $Q_0$  < 0.2mm. Installation damage factor for other soils available upon request.
- 5. Special order roll sizes are available for SG product styles, 12-ft widths and/or custom roll lengths.
- 6. Roll Weights are average values including shipping cores. Actual roll weights may vary.

This product specification supersedes all prior specifications for the products described and is not applicable to any products shipped prior to January 1, 2014. This information has been carefully compiled by Strata Systems, Inc., and to the best of our knowledge is accurate. Final determination of the suitability of any information or material is the sole responsibility of the user. Structural design shall be performed by a licensed design professional.



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