

# **TGU 180** **Geogrid**

TGU Geogrid is a versatile and high-performance solution for soil reinforcement and various civil engineering applications. Manufactured from high-tenacity polyester yarns through an advanced knitting process and coated with a durable polymeric layer, TGU Geogrids deliver exceptional engineering performance. Designed for mechanical and chemical resilience, these geogrids withstand the demands of challenging construction conditions and perform reliably in aggressive soil environments.

## Product Specifications

|                                                                                      |    | UNIT             | TGU 180                                                                                                                    |
|--------------------------------------------------------------------------------------|----|------------------|----------------------------------------------------------------------------------------------------------------------------|
| MECHANICAL PROPERTIES                                                                |    |                  |                                                                                                                            |
| Ultimate Tensile Strength<br>(ASTM D 6637)                                           | MD | kN/m<br>(lbs/ft) | 180<br>(12,334)                                                                                                            |
| Creep Reduction Factor<br>(at 20°C, 114 years design life)                           | MD | RF <sub>CR</sub> | 1.44                                                                                                                       |
| Creep Limited Strength                                                               | MD | kN/m<br>(lbs/ft) | 125<br>(8,565)                                                                                                             |
| Partial Factor - Installation Damage<br>(ASTM D 5818) In sand/silt/clay              |    | RF <sub>ID</sub> | 1.10                                                                                                                       |
| Partial Factor - Environmental Effects<br>(GRI-GG7, GRI-GG8) Environment, 3 < pH < 9 |    | RF <sub>D</sub>  | 1.10                                                                                                                       |
| Long Term Design Strength (LTDS)<br>*sand/silt/clay                                  | MD | kN/m<br>(lbs/ft) | 103.3<br>(7,079)                                                                                                           |
| PHYSICAL PROPERTIES                                                                  |    |                  |                                                                                                                            |
| Roll dimensions (width x length)                                                     |    | m<br>(ft)        | 1.9 x 88 / 3.8 x 88 / 5.7 x 88* / 3.8 x 438.9<br>(6.25 x 288 / 12.5 x 288 / 18.75 x 288* / 12.5 x 1,440)<br>*made to order |
| Roll Area                                                                            |    | sy               | 200 / 400 / 600 / 2,000                                                                                                    |
| MOLECULAR PROPERTIES                                                                 |    |                  |                                                                                                                            |
| Molecular weight<br>(GRI GG8, ASTM D4603)                                            |    | g/mol            | min. 25,000                                                                                                                |
| Carboxyl end group (CEG)<br>(GRI GG7, ASTM D7409)                                    |    | mmol/kg          | max. 30                                                                                                                    |

\* Values above reflect published ultimate values and are derived from Minimum Average Roll Values (MARV).

\* Certain custom roll widths and lengths available upon request

\*\* The information contained herein has been compiled by Terrafix Geosynthetics Inc. and is to the best of our knowledge, true and accurate. This information is offered without a warranty. Final determination of suitability for use contemplated is the sole responsibility of the user. This information is subject to change without notice. 11-2024.