# StrataGrid™ SGU 700

StrataGrid™ uniaxial (SGU) is a polyester (PET) geogrid reinforcement for soil. These high-performance geogrids are constructed of high molecular weight polyester yarns that are knitted and coated with a proprietary coating. SGU is engineered to be mechanically and chemically durable, in both the harsh construction installation phase and in the aggressive soil environments.

| | | Unit | SGU 700 |
|---|---|---|---|
| **Mechanical properties** | | | |
| Minimum ultimate tensile strength (ASTM D6637) | MD | lbs/ft (kN/m) | 47,964 (700) |
| Minimum ultimate tensile strength (ASTM D6637) | CMD | lbs/ft (kN/m) | 2,056 (30) |
| Elongation at minimum ultimate tensile strength[(1)] (ASTM D6637) | MD | % | 10.5 |
| Creep reduction factor (at 20°C, 75 years design life) | $RF_{CR}$ | | 1.43 |
| Creep limited strength | MD | lbs/ft (kN/m) | 33,541 (490) |
| Long term design strength (LTDS) (for clay,silt and sand) | | lbs/ft (kN/m) | 27,515 (402) |
| **Physical properties** | | | |
| Roll dimensions (width x length) | | ft (m) | 12.5 x 288 (3.80 × 88)<br>12.5 x 1440 (3.80 × 440) |
| Roll area | | $yd^2$ ($m^2$) | 400 (334.40)<br>2000 (1,672) |
| Roll weight | | lbs (kgs) | 1,205.93 (547)<br>5,778.31 (2621) |
| **Molecular properties** | | | |
| Molecular weight (GRI GG8 / ASTM D4603) | | g/mol | min. 25,000 |
| Carboxyl End Group (CEG) (GRI GG7 / ASTM D7409) | | mmol/kg | max. 30 |

**Notes**

- The above properties may change at the time of the manufacturing, storing, handling or shipping.
- The values are subject to change as per the discretion of the company.
- Partial factor – environmental effects 5<pH<8 $RF_{EN}$ 1.15
- Partial factor – installation damage (ASTM D 5818) in clay, silt, and sand $RF_{ID}$ 1.06
- Varying roll widths can be provided on order – 6.23 ft / 12.47 ft.
- Customised rolls with varying lengths or master rolls can be manufactured on order.
- Tested in GAI-LAP and NABL accredited laboratories.
- [(1)] Tolerance for elongation is ±2.5%

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ISO 9001, ISO 14001, & ISO 45001