StrataGrid™ SGU 180

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 180
Mechanical properties			
Minimum ultimate tensile strength (ASTM D6637)	MD	lbs/ft (kN/m)	12,334 (180)
Minimum ultimate tensile strength (ASTM D6637)	CMD	lbs/ft (kN/m)	2,056 (30)
Elongation at minimum ultimate tensile strength[(1)] (ASTM D6637)	MD	%	8.50
Creep reduction factor (at 20°C, 75 years design life)	RF_{CR}		1.43
Creep limited strength	MD	lbs/ft (kN/m)	8,625 (126)
Long term design strength (LTDS) (for clay,silt and sand)		lbs/ft (kN/m)	7,353 (107)
Physical properties			
Roll dimensions (width x length)		ft (m)	6.25 x 288 (1.90 × 88) 12.5 x 288 (3.80 × 88) 12.5 x 1440 (3.80 × 440)
Roll area		yd^2 (m^2)	200 (167.20) 400 (334.40) 2000 (1,672)
Roll weight		lbs (kgs)	183.0 (83) 372.58 (169) 1,818.81 (825)
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 D5818) in clay, silt, and sand RF_{ID} 1.02
- Varying roll widths can be provided on order – 6.23 ft / 12.47 ft / 16.40 ft / 18.70 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