



380 Dahlonega Rd., Suite 200, Cumming, GA 30040
 (770) 888-6688 • 1-800-680-7750 • Fax: (770) 888-6680
 E-mail: strata@geogrid.com • Website: www.geogrid.com

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 low temperature coating technology to provide superior engineering properties. Yarns are precision knitted into a dimensionally stable, uniform network of apertures providing significant tensile reinforcement capacity. STRATAGRID is engineered to be mechanically and chemically durable, in both the harsh construction installation phase and in aggressive soil environments (pH range from 2-10). A proprietary UV stabilized coating provides further chemical and mechanical benefits.

Design Properties

Microgrid^{1,2} SG150¹ SG200 SG350 SG500 SG550 SG600 SG700

Ultimate and Creep Limited Tensile Strengths

	ASTM D 6637 Method A	lbs/ft (kN/m)	2,000 (29.2)	1,875 (27.4)	3,500 (51.1)	4,900 (71.5)	6,400 (93.4)	8,150 (118.9)	9,100 (132.8)	11,700 (170.7)
Ultimate Strength ^{2,3}										
Creep Limited Strength	ASTM D 5262	lbs/ft (kN/m)	1,266 (18.5)	1,165 (17.0)	2,215 (32.3)	3,101 (45.3)	4,051 (59.1)	5,158 (75.3)	5,759 (84.1)	7,405 (108.1)

Reduction Factors for Installation Damage and Durability

RF _{Inst. Damage} (3/8" minus, Sand, Silt & Clay, D ₅₀ < 1mm)	1.20	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
RF _{Inst. Damage} (3/4" minus angular aggregate, D ₅₀ < 6mm)	1.30	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
RF _{Inst. Damage} (1.5" minus angular aggregate, D ₅₀ < 20mm)	1.40	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
RF _{Durability}	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10

Long-term Design Strength (LTDS or T_{al})⁴

For Sand, Silt & Clay	lbs/ft (kN/m)	959 (14.0)	1,008 (14.7)	1,918 (28.0)	2,685 (39.2)	3,507 (51.2)	4,466 (65.2)	4,987 (72.8)	6,411 (93.6)
For 3/4" minus angular aggregate	lbs/ft (kN/m)	885 (12.9)	962 (14.0)	1,831 (26.7)	2,563 (37.4)	3,348 (48.9)	4,263 (62.2)	4,760 (69.5)	6,120 (89.3)
For 1.5" minus angular aggregate	lbs/ft (kN/m)	822 (12.0)	882 (12.9)	1,678 (24.5)	2,349 (34.3)	3,069 (44.8)	3,908 (57.0)	4,363 (63.7)	5,610 (81.9)

Physical Properties

Roll Dimensions ⁵	Width x Length	feet (m)	10 x 225 (3.04 x 68.6)	6 x 150 (1.83 x 45.7)	6 x 300 (1.83 x 91.4)	6 x 300 (1.83 x 91.4)	6 x 300 (1.83 x 91.4)	6 x 300 (1.83 x 91.4)	6 x 300 (1.83 x 91.4)	6 x 300 (1.83 x 91.4)
Area	Sq. Yds. (Sq. m.)	250 (209.0)	100 (83.6)	200 (167.2)	200 (167.2)	200 (167.2)	200 (167.2)	200 (167.2)	200 (167.2)	200 (167.2)
Weight per Roll ⁶	lbs (kg)	105 (47.6)	45 (20.4)	110 (49.9)	130 (59.0)	155 (70.3)	170 (77.1)	180 (81.6)	210 (95.3)	

- Denotes both machine and cross-machine direction strength (Biaxial Strength)
- MicroGrid ultimate tensile strength determined in accordance with ASTM D 4595
- Minimum Average Roll Values for machine direction unless otherwise noted (Lot Avg minus 2 x Standard Deviation)
- LTDS or T_{al} = Tult / (RF_{creep} x RF_{installation damage} x RF_{durability})
- Special order roll sizes are available for SG product styles, 12-ft or 18-ft widths and/or custom roll lengths.
- Roll Weights are average values including shipping cores. Actual roll weights may vary.
- StrataGrid soil and segmental retaining wall unit interface properties are available upon request.
- For Permanent walls the T_{al} needs to be factored for uncertainties; Typically RF_{uncertainties} = 1.5

**12-foot and 18-foot roll widths
available upon request**