

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 ^(1,2)	SG150 ⁽¹⁾	SG200	SG350	SG500	SG550	SG600	SG700	SG1200	SG1300	SG1400
Ultimate and Creep Limited Tensile Strengths													
Ultimate Strength ⁽³⁾ (MD)	ASTM D 6637 Method A Single-Rib	lbs/ft	2,000	1,875	3,600	5,000	6,400	8,150	9,100	11,800	13,704	20,556	27,408
		(kN/m)	(29.2)	(27.4)	(52.5)	(73.0)	(93.4)	(118.9)	(132.8)	(172.2)	(200.0)	(300.0)	(400.0)
Creep Limited Strength	ASTM D 5262D 6992	lbs/ft	1,149	1,136	2,323	3,226	4,129	5,258	5,871	7,613	8,841	13,262	17,683
		(kN/m)	(16.8)	(16.6)	(33.9)	(47.1)	(60.3)	(76.7)	(85.7)	(111.1)	(129.0)	(193.5)	(258.0)

Long-term Design Strength (LTDS or T _{al}) ⁽⁴⁾													
Sands, Silt & Clay	lbs/ft	871	861	1,919	2,666	3,412	4,346	4,852	6,292	7,307	10,960	14,614	
	(kN/m)	(12.7)	(12.6)	(28.0)	(38.9)	(49.8)	(63.4)	(70.8)	(91.8)	(106.6)	(159.9)	(213.2)	

Molecular Properties				
Item	Test Method	Unit	Spec	
Molecular Weight (min)	GRI GG8	g/mol	25,000	
Carboxyl End Group (CEG) Count (max)	GRI GG7	meq/kg	30	

Physical Properties														
Roll Dimensions ⁽⁵⁾	Width x Length	feet	8 x 225	6 x 150	6 x 300	6 x 300	6 x 300	6 x 300	6 x 300	6 x 300	12.5 x 200	12.5 x 200	12.5 x 200	
		(m)	(2.44 x 68.6)	(1.83 x 45.7)	(1.83 x 91.4)	(1.83 x 91.4)	(1.83 x 91.4)	(1.83 x 91.4)	(1.83 x 91.4)	(1.83 x 91.4)	(1.83 x 91.4)	(3.8 x 61)	(3.8 x 61)	(3.8 x 61)
		feet	-	12 x 150	12 x 225	12 x 225	12 x 225	12 x 225	12 x 225	12 x 225	12 x 225	-	-	-
		(m)	-	(3.66 x 45.7)	(3.66 x 68.6)	(3.66 x 68.6)	(3.66 x 68.6)	(3.66 x 68.6)	(3.66 x 68.6)	(3.66 x 68.6)	(3.66 x 68.6)	-	-	-
Area	Sq. Yds.	200	100/200	200/300	200/300	200/300	200/300	200/300	200/300	200/300	277	277	277	
	(Sq. m.)	(167.2)	(83.6/167.2)	(167.2/250.8)	(167.2/250.8)	(167.2/250.8)	(167.2/250.8)	(167.2/250.8)	(167.2/250.8)	(167.2/250.8)	(231.8)	(231.8)	(231.8)	
Product Weight ⁽⁶⁾	oz/sy	4.5	5.5	6.5	7.0	9.0	10.5	11.0	13.0	18	25.6	33.6		
	(g/sq.m.)	(152.6)	(186.5)	(220.4)	(237.3)	(305.2)	(356.0)	(373.0)	(440.8)	(610)	(869)	(1140)		
Weight per Roll ⁽⁶⁾	lbs	70	45/80	95/135	100/143	125/180	145/210	150/218	175/255	315	450	630		
	(kg)	(31.7)	(20.4/36.3)	(43.1/61.2)	(45.4/64.8)	(56.7/81.6)	(65.7/95.3)	(68.3/98.8)	(79.4/115.6)	(142.9)	(204.1)	(286.8)		

1) Denotes both machine and cross-machine direction strength (Biaxial Strength). 2) Microgrid ultimate tensile strength determined in accordance with ASTM D 4595 3) Minimum Average Roll Values for machine direction unless otherwise noted (Lot Avg minus 2 x Standard Deviation). 4) LTDS or T_{al} = TULT / (RF_{creep} x RF_{installation} damage x RF_{durability}) for sand, silt and clay soil D_{max} ≤ 25mm, D₅₀ < 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. 7) Stratagrid soil and segmental retaining wall unit interface properties are available upon request. 8) For permanent walls the above LTDS or T_{al} should account for an overall factor of safety for uncertainties per industry standards; typically FS_{unc} = 1.5 [Note T_a = LTDS/FS_{unc}]. 9) At time of manufacturing, handling, storage and shipping may change these properties.



APPLICATIONS

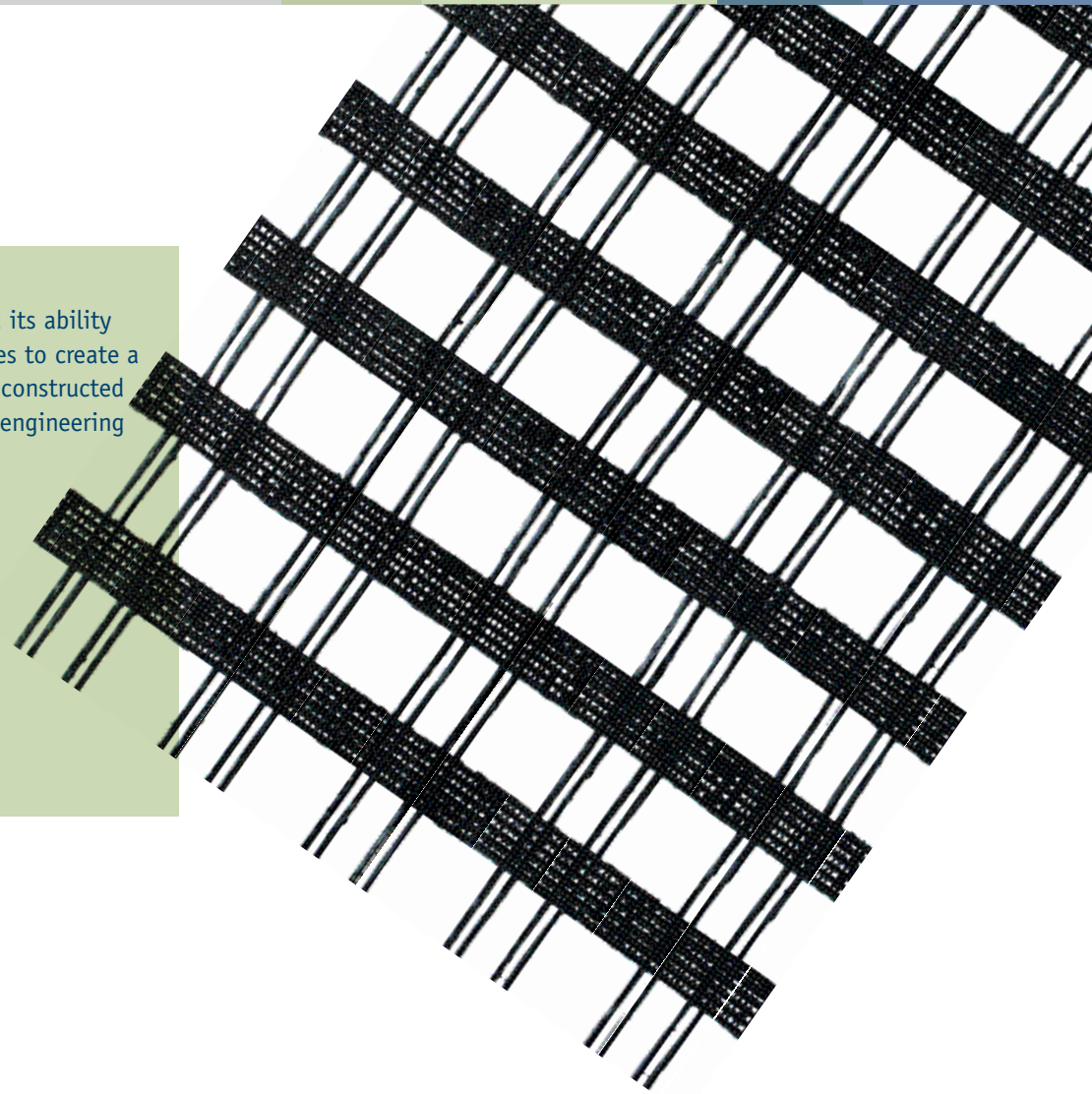
Stratagrid Geosynthetics

Strata Systems success is a direct result of the power of STRATAGRID® performance and its ability to solve common civil engineering problems. STRATAGRID interacts with the soil particles to create a permanent composite soil/geosynthetic structure. These high performance geogrids are constructed of high tenacity polyester yarn utilizing a complex knitting process to provide superior engineering properties.

- Segmental Retaining Walls
- Reinforced Steep Slopes
- Reinforced Embankments Over Soft Soil
- Landslide Repair
- Reinforced Foundations

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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