

## **Construction Geosynthetics**

## RETAINING WALL

## **SG 700**

**STRATAGRID** is 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 polymer coating 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 3-9).

Property	Test Method	English	Metric
Ultimate Strength	ASTM D-6637 Method A	11,800 lbs/ft	172.2 kN/m
Tensile Modulus @ 2% Strain	ASTM D-6637 Method A	1,175 lbs/ft	17.1 kN/m
Tensile Modulus @ 5% Strain	ASTM D-6637 Method A	2,937 lbs/ft	42.9 kN/m
Tensile Strength @ 10% Strain	ASTM D-6637 Method A	8,225 lbs/ft	120 kN/m
Creep Reduction Factor		1.55	1.55
Creep Limited Strength		7,613 lbs/ft	111.1 kN/m
LTDS (SM, SC, CL, ML)	LTDS or Tal	6,292 lbs/ft	91.8 kN/m
LTDS (SW, SP, SM, SC)	LTDS or Tal	6,292 lbs/ft	91.8 kN/m
LTDS (GP, GW, GM, GC, SW, SP, SM, SC)	LTDS or Tal	6,018 lbs/ft	87.8 kN/m
LTDS (GP)	LTDS or Tal	5,537 lbs/ft	80.8 kN/m
LTDS (GP)(2)	LTDS or Tal	4,326 lbs/ft	63.1 kN/m
Molecular Weight (min.)	GRI GG8	25,000 g/mol	25,000 g/mol
Carboxyl End Group Count (max.)	GRI GG7	30 Meg/kg	30 Meg/kg
Aperture Size	Measured	2.45 x 0.95 in	62.2 x 24.1 mm

Reduction Factor	Value
RF(id) Soil - 25mm minus, D50 ≤ 0.2mm (SM, SC, CL, ML)	1.10
RF(id) Soil - 25mm minus, D50 ≤ 5mm (SW, SP, SM, SC)	1.10
RF(id) Soil - 25mm minus, D50 ≤ 10mm (GP, GW, GM, GC, SW, SP, SM, SC)	1.15
RF(id) Soil - 50mm minus, D50 ≤ 0.20mm (GP)	1.25
RF(id) Soil - 50mm minus, D50 ≤ 0.30mm (GP)	1.60
$RF(d)$ (3 $\leq$ pH $\leq$ 9) (PET - CEG $<$ 30, MW $>$ 25,000)	1.10

Soil Interaction Coefficient	Value
Silts/Clay (ML, CL)	0.6 - 0.7
Sandy Silts & Clay (SC,GC)	0.7 - 0.8
Poorly-Graded Sand & Gravel, Silty Sand (GP, GM, SP, SM)	0.8 - 0.9
Well-Graded Gravel, Sand Gravel Mix, Well-Graded Sand (SW, GW)	0.9 - 1.0

Roll Size	Roll Diameter	Area	Weight
6' x 300'	15.0 in	200 sys	175 lbs
12' x 225'	14.0 in	300 sys	255 lbs

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