

HTG (High Tenacity Geogrid) is a geogrid reinforcement for earth structures manufactured with high tenacity polyester yarn and high molecular weight. The polyester yarns are woven into a uniform network of apertures providing unsurpassed reinforcement capacity. The geogrid is engineered to be both mechanically and chemically durable (pH between 3 and 9). The black polymer coating provides further chemical protection and enhanced mechanical connection at junctures. Below are the Index Property test values. Designed in the U.S.A.

### Minimum Average Roll Values

	<u>20</u>	<u>35</u>	<u>80</u>	<u>120</u>	<u>160</u>
<b>STRENGTH</b>					
<b>Ultimate Strength (<math>T_{Ult}</math>)</b>	2,650 (38.7)	3,604 (52.6)	5,813 (84.8)	8,071 (117.8)	10,730 (156.6)
ASTM D6637-lb/ft (kN/m) MD					
<b>Creep Reduction Factor</b>	1.54	1.54	1.54	1.54	1.54
<b>Durability Reduction Factor, <math>RF_D</math></b>	1.10	1.10	1.10	1.10	1.10
<b>Installation Damage (<math>RF_{ID}</math>)</b>					
Sand, Silt, Clay	1.05	1.05	1.05	1.05	1.05
Sandy Gravel	1.10	1.10	1.10	1.10	1.10
Gravel	1.20	1.20	1.20	1.20	1.20
<b>LTDS GRI GG4-lb/ft(kN/m) MD</b>					
Sand, Silt, Clay	1,490 (21.8)	2,026 (29.6)	3,268 (47.7)	4,538 (66.2)	6,032 (88.0)
Sandy Gravel	1,422 (20.8)	1,934 (28.2)	3,120 (45.5)	4,331 (63.2)	5,758 (84.0)
Gravel	1,304 (19.0)	1,773 (25.9)	2,860 (41.7)	3,970 (57.9)	5,278 (77.0)
<b>Interaction Coefficients</b>	Silt 0.6-0.7, Sandy Silt 0.7-0.8, Sand 0.8-0.9, Gravel 0.9-1.0				
<b>GEOMETRY</b>					
<b>Aperture Size</b>					
-MD Inches (mm)	0.72 (18.3)	0.72 (18.3)	0.74 (18.8)	0.72 (18.3)	0.71 (18.0)
-CMD Inches (mm)	0.72 (18.3)	0.72 (18.3)	0.72 (18.3)	0.73 (18.5)	0.71 (18.0)
<b>WEIGHT</b>					
ASTM D4632 - oz/yd <sup>2</sup> (kg/m <sup>2</sup> )	4.8 (0.16)	5.3 (0.18)	8.1 (0.28)	10.9 (0.38)	16.7 (0.58)
<b>ROLL SIZE</b>					
Width feet(m)	6.56 (2.0)	6.56 (2.0)	6.56 (2.0)	6.56 (2.0)	6.56 (2.0)
Length feet(m)	328 (100)	328 (100)	328 (100)	328 (100)	328 (100)
Area sq.yards(m <sup>2</sup> )	240 (200)	240 (200)	240 (200)	240 (200)	240 (200)
Weight lbs(N)	59 (263)	89 (397)	122 (544)	164 (731)	251 (1117)

WHERE: MD = Machine Direction, running along roll length

CMD = Cross Machine Direction, running across the roll length (running along the roll width)

RF<sub>d</sub> = 1.1 recommended based upon FHWA Demonstration Project 82

LTDS = Long Term Design Strength =  $T_{Ult} / RF_{Creep} \times RF_{Installation\ Damage} \times RF_{Durability}$

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