

HTG (High Tenacity Geogrid) is designed in the USA by our retaining wall engineers and contract produced to exacting specifications as well as tested by a GAI certified testing laboratory here in the USA. The high tenacity polyester yarns are knitted into a uniform network of apertures providing unsurpassed reinforcement capacity and engineering efficiency. The geogrid is engineered to be both mechanically and chemically durable (pH between 3 and 9). The black polymer coating provides UV protection and additional stability and durability.

Minimum Average Roll Values

	<u>20</u>		<u>35</u>		<u>80</u>		<u>120</u>		<u>160</u>	
STRENGTH										
Ultimate Strength (T_{Ult})	2,755	(40.2)	3,861	(56.3)	5,955	(86.9)	8,651	(126.3)	11,540	(168.4)
ASTM D6637-lb/ft (kN/m) MD										
Creep Reduction Factor	1.54		1.54		1.54		1.54		1.54	
Durability Reduction Factor, R_F	1.10		1.10		1.10		1.10		1.10	
Installation Damage (R_{F_ID})										
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	
Tal (LTDS) - Long Term Design Strength										
Sand, Silt, Clay	1,549	(22.6)	2,171	(31.7)	3,348	(48.9)	4,864	(71.0)	6,488	(94.7)
Sandy Gravel	1,478	(21.6)	2,072	(30.2)	3,196	(46.6)	4,643	(67.8)	6,193	(90.4)
Gravel	1,355	(19.8)	1,899	(27.7)	2,929	(42.8)	4,256	(62.1)	5,677	(82.8)
Interaction Coefficients										
	Silt 0.6-0.7, Sandy Silt 0.7-0.8, Sand 0.8-0.9, Gravel 0.9-1.0									
GEOMETRY										
Aperture Size										
-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)
WEIGHT										
ASTM D4632 - oz/yd ² (kg/m ²)	4.8	(0.16)	5.3	(0.18)	8.1	(0.28)	10.9	(0.38)	16.7	(0.58)
ROLL SIZE										
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 ²)	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 width
 R_Fd = 1.1 recommended based upon FHWA Demonstration Project 82
 Tal (LTDS) = Long Term Design Strength = T_{Ult} / R_FCreep × R_FInstallation Damage × R_FDurability

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