

TABLE OF WOVEN GEOGRID VALUES

PROPERTY	REQUIRED TEST METHOD	SYNTEEN SF 20	SYNTEEN SF 35	SYNTEEN SF 40	SYNTEEN SF 50	SYNTEEN SF 55	SYNTEEN SF 80	SYNTEEN SF 110	Raugrid 3/3	Raugrid 4/2	Raugrid 6/3	Raugrid 8/3	Raugrid 10/3	
UV Stability (Retained 50% Strength Min. @ 500 hr.)	ASTM D 4355	70%	70%	70%	70%	70%	70%	70%	95%	95%	95%	95%	95%	
Tensile Strength (kN/m)	ASTM D 4595													
Machine Direction		Ultimate	24.4	38.3	44.5	54.5	55.1	81.5	108.9	32.6	41.5	63.5	77.2	96.2
		2% Ultimate	5.4	6.7	7.1	11.5	10.7	14.8	17.3	—	—	—	—	—
		5% Ultimate	9.8	10.6	14.2	13.5	16.9	18.6	24.6	10.4	11.2	16.7	17.0	23.1
Cross Direction		Ultimate	23.8	37.3	44.5	57.4	36.5	32.2	31.8	32.3	21.3	28.6	30.5	32.0
		2% Ultimate	5.4	5.8	6.3	9.2	8.8	12.9	18.6	—	—	—	—	—
		5% Ultimate	9.8	8.5	11.2	11.9	11.6	22.8	23.1	7.9	5.2	6.6	7.4	7.6
Strain @ Ultimate Tensile Strength		ASTM D 4595	9.4%	14.1%	9.9%	14.2%	11.5%	13.9%	18.8%	10.8%	11.8%	13.1%	12.2%	11.5%
Secant Modulus (kN/m)			2% strain	270	337	356	577	537	742	866	—	—	—	—
	5% strain		196	212	283	269	338	372	482	—	—	—	—	—
	10% strain		222	222	322	269	396	553	400	—	—	—	—	—
Junction Strength (kN/m)	GRI : GG2	—	—	—	—	—	—	—	N/A	108	199	168	146	
Soil- Geosynthetic Friction	GRI : GG5, GT7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	
Creep Resistance- $T_{creep}$ (kN/m)	ASTM D 5262	14.7	22.2	22.3	32.1	33.1	46.5	58.8	21.4	27.3	41.7	50.8	63.3	
Creep Reduction Factor ( $T_{ult}/T_{creep}$ )	GRI : GG3 & GT5	1.66	1.73	2.00	1.70	1.67	1.75	2.02	1.52	1.52	1.52	1.52	1.52	
Installation Damage (RC)	Sand	GRI : GG4 & GT7	1.05	1.15	1.15	1.08	1.08	1.08	1.10	1.10	1.10	1.10	1.10	
	Limestone		1.75	1.70	1.60	1.55	1.55	1.55	1.35	1.17	1.17	1.17	1.17	
Durability (RF <sub>d</sub> )	Chemical	ASTM D 5322	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.15	1.15	1.15	1.15	
	Biological	ASTM D1987, D3083, G21 & G22	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.15	1.15	1.15	1.15	
Joint Strength (RF <sub>j</sub> )	Mechanical	ASTM D 4595, GRI : GG4 & GT7	—	—	—	—	—	—	—	—	—	—	—	
	Overlap	GRI : GG5 & GT6	1.10	1.10	1.10	1.10	1.10	1.10	1.10	—	—	—	—	
Approved Application Usage		3	3	3	3	3	3	3	3	3	3	3		

Approved Application Usage: 1 = Steepened Slopes  
 2 = Reinforcement of Foundations over Soft Soils  
 3 = Both Steepened Slopes & Reinforcement of Foundations over Soft Soils

THE SEALED RECORD OF THIS STANDARD IS ON FILE IN THE ROADWAY DESIGN OFFICE.

INTERIM STANDARD IN METRIC UNITS APPLICABLE TO ROADWAY AND TRAFFIC DESIGN STANDARDS, BOOKLET PUBLISHED IN METRIC UNITS.

## APPROVED GEOSYNTHETIC PRODUCTS (WOVEN GEOGRIDS) APPLICATION AND PROPERTIES

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN	
<b>GEOSYNTHETIC REINFORCED SOILS</b>	
INTERIM STANDARD	APPROVED BY  STATE GEOTECHNICAL ENGINEER
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