BaseGrid 33

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MULTILAYER BI-ORIENTED GEOGRIDS

US Fabrics Inc BaseGrid 33 is composed of three layers of high strength extruded biaxially oriented polypropylene geogrids. The layers are rolled and stitched together without superimposing the grids creating a geogrid with random sized apertures designed to accommodate a variety of fill materials. The random aperture geometry, many tensile elements, and multiple layers of the geogrid enhance soil/geogrid interaction.

US Fabrics Inc BaseGrid 33 geogrid greatly improves the geogrid interlocking capacity, distributes applied loads, and prevents localized shear failure.

TYPICAL APPLICATIONS

Soft soil stabilization • Base reinforcement • Embankments over soft soils • Working platforms • Haul roads

MATERIAL CHARACTERISTICS	TEST METHOD	DATA
Polymer Type		Polypropylene
Carbon Black Content	ASTM D 4218	0.50%

TECHNICAL CHARACTERISTICS	TEST METHOD	UNIT	BaseGrid 33		NOTES
			MD	TD	
Strengths and Load Capacity:					
Peak Tensile Strength	GRI-GG1	lb/ft (kN/m)	1,370 (20.0)	2,100 (30.7)	a,c,e
True Tensile Strength in Use: @ 2% Strain	GRI-GG1	lb/ft (kN/m)	418 (6.1)	616 (9.0)	a,c,e
@ 5% Strain			925 (13.5)	1,340 (19.6)	a,c,e
True Initial Modulus in Use	GRI-GG1	lb/ft (kN/m)	27,400 (400)	44,425 (650)	a,c,e
Tensile Modulus: @ 2% Strain	GRI-GG1	lb/ft (kN/m)	20,900 (305)	30,800 (450)	a,c,e
@ 5% Strain			18,500 (270)	26,850 (392)	
Structural Integrity:					
Junction Tensile Strength: @ 1% Strain	GRI-GG2	lb/ft (kN/m)	220 (3.21)	300 (4.35)	b,e
@ 2% Strain			365 (5.32)	500 (7.30)	b,e
Junction Tensile Modulus: @ 1% Strain	GRI-GG2	lb/ft (kN/m)	22,000 (321)	30,000 (435)	b,e
@ 2% Strain			18,220 (266)	25,000 (365)	b,e
Junction: Strength	GRI-GG2	lb/ft (kN/m)	1,274 (18.6)	1,970 (28.8)	a,e
Efficiency		%	93	93	a,e
Flexural Rigidity	ASTM D 1388	mg-cm	750,000	750,000	b,e
Durability:					
Resistance to Installation Damage	ASTM D 5818	%SC/%SW/%GP	>90/>90/90	>90/>90/90	f

DIMENSIONAL CHARACTERISTICS	TEST METHOD	UNIT	BaseGrid 33	NOTES
Thickness: Junction	ASTM D 1777	in (mm)	0.16 (4.0)	b,d
Rib – MD/TD		in (mm) / in (mm)	0.059 (1.5) / 0.059 (1.5)	b,d,e
Aperture Size		in (mm) x in (mm)	1.65 (42) x 1.96 (50)	b,d,e
Open Area		**%**	70	a
Unit Weight	ASTM D 5261	oz/yd2 (g/m2)	9.7 (330)	b
Roll Dimensions		ft x ft (m x m)	13.1 x 164 (3.99 x 50)	b
Roll Area		yd2 (m2)	239 (190)	b
Gross Roll Weight		lb (kg)	175 (79.5)	b

NOTES

a) 95% lower confidence limit values, ISO 2602	d) Single layer dimension	f) Tenax report GRID-TE-4: "Construction Damage Tests of Geogrids"
b) Typical value	e) MD: Machine direction (longitudinal to the roll) TD:Transversal direction (across the roll width)	
c) Tests performed using extensometers		

The geosynthetic industry has not identified any values for the index property Torsional Stiffness (Secant Aperture Stability Modulus), nor has the test method been developed as an industry standard (ASTM or GRI). Therefore, accredited geosynthetic independent labs cannot evaluate a product per this method. The above information is to the best of our knowledge accurate, but is not intended to be considered as a guarantee. Any implied warranty for a particular use or purpose is excluded. If the Product does not meet the above properties, and notice is given to US Fabrics, Inc., the product will be replaced or refunded. (1/2009).