



BaseGrid 50

3904 Virginia Ave • Cincinnati, Ohio 45227 • Phone (513) 271-6000 • Fax (513) 271-4420

MULTILAYER BI-ORIENTED GEOGRIDS

US Fabrics Inc BaseGrid 50 is composed of five 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 50 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 50		NOTES
			MD	TD	
Strengths and Load Capacity:					
Peak Tensile Strength	ASTM D6637	lb/ft (kN/m)	2397 (35)	2397 (35)	a,c,e
True Tensile Strength in Use: @ 2% Strain @ 5% Strain	ASTM D6637	lb/ft (kN/m)	548 (8)	685 (10.0)	a,c,e
			1096 (16)	1342 (19.6)	a,c,e
True Initial Modulus in Use	ASTM D6637	lb/ft (kN/m)	2740 (40)	2740 (40)	a,c,e
Tensile Modulus: @ 2% Strain @ 5% Strain	ASTM D6637	lb/ft (kN/m)	27,400 (400)	34,250 (500)	a,c,e
			21,920 (320)	26,852 (392)	
Structural Integrity:					
Junction Tensile Strength: @ 1% Strain @ 2% Strain	GRI-GG2	lb/ft (kN/m)	274 (4)	274 (4)	a,e
			479.5 (7)	479.5 (7)	a,e
Junction Tensile Modulus: @ 1% Strain @ 2% Strain	GRI-GG2	lb/ft (kN/m)	27,400 (400)	27,400 (400)	a,e
			95,900 (1,400)	95,900 (1,400)	a,e
Junction: Strength Efficiency	GRI-GG2	lb/ft (kN/m) %	2,157 (31.5)	2,157 (31.5)	a,e
			90	90	a,e
Flexural Rigidity	ASTM D 1388	mg-cm	750,000	750,000	b

DIMENSIONAL CHARACTERISTICS	TEST METHOD	UNIT	BaseGrid 50	NOTES
Thickness: Junction Rib – MD/TD	ASTM D 1777	in (mm)	0.1 (2.5)	b,d
		in (mm) / in (mm)	0.043 (1.1) / 0.043 (1.1)	b,d,e
Aperture Size		in (mm) x in (mm)	2.36 (60) x 2.76 (70)	b,d,e
Open Area	CW 02215	%	70	a
Unit Weight	ASTM D 5261	oz/yd ² (g/m ²)	9.26 (315)	b
Roll Dimensions		ft x ft (m x m)	14.76 x 164 (4.5 x 50)	b
Roll Area		yd ² (m ²)	269 (225)	b
Gross Roll Weight		lb (kg)	186.1 (84.5)	b

NOTES

a) 95% lower confidence limit values, ISO 2602	d) Single layer value
b) Typical value	e) MD: Machine direction (longitudinal to the roll)
c) Tests performed using extensometers	TD: Transversal direction (across the roll width)

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).