TENAX MS 220

TENAX MS™ 220 is composed of two layers of high strength extruded biaxial 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. TENAX MS™ 220 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%

DIMENSIONAL CHARACTERISTICS	TEST METHOD	UNIT		NOTES
thickness: rib - MD/TD	ASTM D 1777	in (mm) / in (mm)	0.05 (1.27) / 0.05 (1.27)	b,d,e
aperture size		in (mm) / in (mm)	1.65 (42) x 1.96 (50)	b,d,e
open area	CW 02215	%	75	b
roll dimensions		ft x ft (m x m)	13.1 x 328 (4.0 x 100)	b
roll area		yd2 (m2)	478.5 (400)	b
gross roll weight		lb (kg)	211 (96)	b

TECHNICAL CHARACTERISTICS	TEST METHOD	UNIT			NOTES
Strengths & Load Capacity:			**MD**	**TD**	
peak tensile strength	ASTM D6637	lb/ft (kN/m)	925 (13.5)	1,400 (20.5)	a,c,e
tensile strength @2% strain	ASTM D6637	lb/ft (kN/m)	301 (4.4)	450 (6.6)	a,c,e
tensile strength @5% strain	ASTM D6637	lb/ft (kN/m)	616 (9.0)	920 (13.4)	a,c,e
initial modulus	ASTM D6637	lb/ft (kN/m)	17,140 (250)	27,420 (400)	a,c,e
tensile modulus @ 2% strain	ASTM D6637	lb/ft (kN/m)	15,050 (220)	22,500 (328)	a,c,e
tensile modulus @ 5% strain	ASTM D6637	lb/ft (kN/m)	12,320 (180)	18,400 (269)	a,c,e
Structural Integrity:					
junction: strength	GRI-GG2	lb/ft (kN/m)	860 (12.55)	1,315 (19.2)	a,e
efficiency	GRI-GG2	%	93		a,e
flexural rigidity	ASTM D 1388	mg-cm	250,000	250,000	b
Durability:					
resistance to installation damage	ASTM D 5818	%SC/%SW/%GP	>90/>90/90		

NOTES: a: Minimum average roll values determined in accordance with ASTM D4759; b: Typical values; c: Tests performed using extensometers; d: Single layer value; e: MD: machine direction (longitudinal to the roll), TD: transverse direction (across roll width)

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