SWAMP GRID™ 40

BIAXIAL GEOGRID COMPOSITE

TITAN
BUILD YOUR LEGEND

Swamp Grid™ 40 is a composite made of biaxial polypropylene (PP) geogrid, heat bonded to a continuous filament non-woven polyester geotextile that acts as a filter and soil separator. This geogrid is manufactured using a punching and drawing process whereby the polypropylene sheet is stretched in two directions, machine (longitudinal) and cross-machine (transverse). The result is a monolithic and isotropic geogrid with thick and wide ribs, thick integral nodes, and uniform square apertures. Engineered to be mechanically and chemically stable in aggressive soil environments, Swamp Grid™ allows sub-base drainage to help maintain structural stability and is highly effective in keeping expensive imported material from being contaminated by migration of fines from the saturated base soils.

TESTED PROPERTY	TEST METHOD	UNIT ENGLISH (METRIC)	VALUE ENGLISH (METRIC)	
BI-AXIAL GEOGRID			**MD**	**XD**
Carbon Black Content	ASTM D 4218	%	2.0	
Ultimate Tensile Strength (1)	ASTM D 6637	lbs/ft (kN/m)	2,742 (40.0)	2,742 (40.0)
Tensile Strength at 2% strain (1)	ASTM D 6637	lbs/ft (kN/m)	1,097 (16.0)	1,097 (16.0)
Tensile Stresnth at 5% strain (1)	ASTM D 6637	lbs/ft (kN/m)	2,056 (30.0)	2,056 (30.0)
Junction Efficiency (2)(3)	GRI-GG2 ASTM D 7737	%	>95	>95
Flexural Rigidity (1)	ASTM D 7748	mg-cm	3,500,000	
Aperture Stability (2)(4)	US. COE	m-N/deg	0.90	
Minimum Rib Thickness.	Callipered	inch (mm)	0.13 (3.3)	0.08 (2.0)
Aperture Size (2)(5)	Nominal	inch (mm)	1.45 (37.0)	1.45 (37.0)
NON-WOVEN GEOTEXTILE				
Raw Material	Polyester, Continuous Filamment, Needle Punched			
Grab Strength (1)	ASTM D 4632	lbs (N)	134.8 (600)	
Trapezoidal Tear (1)	ASTM D 4533	lbs (N)	56.20 (250)	
Flow Rate	ASTM D 4491	gal/min/ft^2 (l/min/m^2)	122.7 (5000)	
Apparent Opening Size O_{95}	ASTM D 4751	mm	0.12	
Mass Per Unit Area (2)	ASTM D 5261	g/m^2	150	
TYPICAL ROLL DIMENSIONS				
Roll Width		ft (m)	12.95 (3.95)	
Roll Length (6)		ft (m)	164.04 (50.0)	

NOTES:
(1) Minimum Average Roll Values (MARV) – calculated as (mean minus 2X standard deviation) – ASTM -D4759-02
(2) Average.
(3) Junction efficiency is defined as junction strength divided by multi-rib strength.
(4) Resistance to in plane rotational movement measured at an applied moment = 2m-N (20kg-cm)
in accordance with US Army Corps of Engineers methodology for the measurement of Torsional rigidity.
(5) Aperture tolerance: within +/- 10% coefficient of variance.
(6) Custom length orders can be accommodated.

Titan Environmental Containment

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