

SWAMP GRID® 20

BIAXIAL GEOGRID COMPOSITE



Swamp Grid® 20 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® 20 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)	1,371 (20.0)	1,371 (20.0)
Tensile Strength at 2% strain ⁽¹⁾	ASTM D 6637	lbs/ft (kN/m)	548 (8.0)	548 (8.0)
Tensile Strength at 5% strain ⁽¹⁾	ASTM D 6637	lbs/ft (kN/m)	1,097 (16.0)	1,097 (16.0)
Junction Efficiency ⁽²⁾⁽³⁾	GRI-GG2 ASTM D 7737	%	>95	>95
Flexural Rigidity ⁽¹⁾	ASTM D 7748	mg-cm	750,000	
Aperture Stability ⁽²⁾⁽⁴⁾	US. COE	m-N/deg	0.50	
Minimum Rib Thickness	Callipered	inch (mm)	0.06 (1.4)	0.04 (1.0)
Aperture Size ⁽²⁾⁽⁵⁾	Nominal	inch (mm)	1.38 (35.0)	1.38 (35.0)
NON-WOVEN GEOTEXTILE				
Raw Material	Polyester, Continuous Filament, Needle Punched			
Grab Strength ⁽¹⁾	ASTM D 4632	lbs (N)	134.8 (600)	
Trapezoidal Tear ⁽¹⁾	ASTM D 4533	lbs (N)	56.20 (250)	
CBR Puncture Resistance ⁽¹⁾	ASTM D 6241	lbs (N)	335 (1490)	
Flow Rate ⁽¹⁾	ASTM D 4491	gal/min/ft ² (l/min/m ²)	122.7 (5000)	
Apparent Opening Size O ₉₅ ⁽⁷⁾	ASTM D 4751	mm	0.12	
Mass Per Unit Area ⁽²⁾	ASTM D 5262	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.

(7) Maximum average roll value.

This data is provided for informational purposes only. Titan Environmental Containment Ltd. makes no warranties as to the suitability or the fitness for a specific use or merchantability of the products referred to, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability from resulting loss or damage. This information is subject to change without notice, please check with Titan Environmental Containment Ltd. for current updates.

Titan Environmental Containment | Titan Environmental USA

Toll free: 1-866-327-1957 | info@titanenviro.com | TitanEnviro.com

Rev. July 2025