

TE-BXC20

BI-AXIAL GEOGRID COMPOSITE



Titan's TE-BXC is a composite made of bi-axial polypropylene (PP) geogrid, heat bonded to a long fiber 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, TE-BXC allows sub-base drainage to help maintain structural stability, and is very 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)	
			MD	XD
BI-AXIAL GEOGRID				
Carbon Black Content	ASTM D 4218	%	2.0	
Ultimate Tensile Strength ⁽¹⁾	ASTM D 6637	lbs/ft (kN/m)	1,645 (24.0)	1,645 (24.0)
Tensile Strength at 2% strain ⁽¹⁾	ASTM D 6637	lbs/ft (kN/m)	720 (10.5)	720 (10.5)
Tensile Strength at 5% strain ⁽¹⁾	ASTM D 6637	lbs/ft (kN/m)	1,343 (19.6)	1,343 (19.6)
Junction Efficiency ⁽²⁾⁽³⁾	GRI-GG ₂ ASTM D 7737	%	>95	>95
Flexural Rigidity ⁽¹⁾	ASTM D 7748	mg-cm	1,000,000	
Aperture Stability ⁽²⁾⁽⁴⁾	US. COE	m-N/deg	0.65	
Minimum Rib Thickness	Callipered	inch (mm)	0.07 (1.7)	0.05 (1.3)
Aperture Size ⁽²⁾⁽⁵⁾	Nominal	inch (mm)	1.33 (34.0)	1.22 (31.0)
GEOTEXTILE				
Raw Material		Polyester, Continuous filament, needle punched		
Ultimate Tensile Strength ⁽¹⁾	ASTM D 4595	lbs/ft (kN/m)	781 (11.4)	781 (11.4)
Grab Strength ⁽¹⁾	ASTM D 4632	lbs (kN)	128 (0.57)	
Trapezoidal Tear ⁽¹⁾	ASTM D 4533	lbs (kN)	56 (0.25)	
Elongation at Ultimate ⁽²⁾	ASTM D 4595	%	60	60
CBR Burst Strength ⁽¹⁾	ASTM D 6241	lbs (kN)	540 (2.4)	
Permeability	ASTM D 4491	cm/sec	0.41	
Apparent Opening Size O ₉₅	ASTM D 4751	mm	0.12	
Mass Per Unit Area ⁽²⁾	ASTM D 5261	oz/yd ² (g/m ²)	6.0 (200)	
TYPICAL ROLL DIMENSIONS				
Roll Width		ft (m)	12.79 (3.9)	
Roll Length ⁽⁶⁾		ft (m)	164.04 (50.0)	

- NOTES: (1) Minimum Average Roll Values (MARV) – calculated as (mean minus 2X standard deviation)
 (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 momen = 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.

This data is provided for informational purposes only. Titan 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 us for current updates.

TITAN ENVIRONMENTAL USA

Tel: 1-713-849-1311 | Email: info@titanenviro.com | Web: www.titanenviro.com

(Rev. April, 2018)

TRUST. QUALITY. VALUE