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## TITAN TE-BX 15PP

### BI-AXIAL PP GEOGRID

Titan's TE-BX bi-axial geogrid range is manufactured out of virgin Polypropylene by a unique punching and drawing process resulting in a bi-directional oriented monolithic and an isotropic bi-axial geogrid possessing integral nodes. The ribs possess a high degree of molecular orientation, which continues at least in part through the mass of the integral node and the ribs are thicker and wider.

The Titan bi-axial geogrid provides an ideal solution for soil stabilization, sub-base reinforcement, foundation support and other highway challenges. These products feature high tensile stiffness at low strains and excellent resistance to construction damage and environmental exposure. The Titan family of bi-axial geogrids is engineered to be mechanically and chemically stable in aggressive soil environments and is not susceptible to hydrolysis, environmental stress cracking and micro-organisms attack and is formulated to resist ultra-violet light degradation. The geometry of the Titan bi-axial geogrid allows a strong positive mechanical interlock with the soil particles being reinforced. A significant saving in the fill thickness as well as other long-term benefits can be achieved by using Titan's bi-axial geogrid range of products.

**Product Type : Integrally Formed bi-directional oriented monolithic geogrid**

**Polymer : Polypropylene**

**Load Transfer Mechanics: Positive Mechanical Interlock**

**Carbon Black Content: 2% (ASTMD4218)**

PROPERTIES		TEST METHOD	UNIT MEASURE	TE-BX 15PP
Ultimate Tensile Strength <sup>(1)</sup>	MD	ASTM D 6637	KN/m (lbs/ft)	16.5 ( 1,131 )
	XD	ASTM D 6637	KN/m (lbs/ft)	16.5 ( 1,131 )
Tensile Strength at 2% strain <sup>(1)</sup>	MD	ASTM D 6637	KN/m (lbs/ft)	7.0 ( 480 )
	XD	ASTM D 6637	KN/m (lbs/ft)	7.0 ( 480 )
Tensile Strength at 5% strain <sup>(1)</sup>	MD	ASTM D 6637	KN/m (lbs/ft)	12.5(857 )
	XD	ASTM D 6637	KN/m (lbs/ft)	12.5(857)
<b>STRUCTURAL PROPERTIES</b>				
Junction Efficiency <sup>(2) (4)</sup>	MD	GRI-GG <sub>2</sub>	%	>95
Flexural Rigidity <sup>(1) (3)</sup>		ASTM D 1388	mg-cm	350,000
Aperture Stability <sup>(2) (5)</sup>		US. COE	m-N/deg	0.40
<b>PHYSICAL PROPERTIES</b>				
Minimum Rib Thickness	MD	Callipered	mm (inch)	1.0 (0.04)
	XD	Callipered	mm (inch)	0.9 (0.03 )
Aperture Size <sup>(2) (6)</sup>	MD	Nominal	mm (inch)	31.0 ( 1.49 )
	XD	Nominal	mm (inch)	33.0 ( 1.49)
Mass/Unit Area <sup>(2)</sup>		ASTM D 5261	g/m <sup>2</sup> (oz/y <sup>2</sup> )	205 ( 6.1)
Roll Width		Minimum	m (ft)	3.9 (12.79 )
Roll Length <sup>(7)</sup>		Minimum	m (ft)	50.0 (164.04 )

**Notes :** (1) Minimum Average Roll Values (MARV) Values- calculated as( Mean minus 2X standard deviation)(2) Average, (3) Flexural Rigidity measured using specimens longer than the standard specimen length described in ASTM D 1388, (4 ) Junction efficiency is defined as junction strength divided by multi-rib strength. (5) Resistance to in plane rotational movement measured at an applied Moment = 20kg-cm ( 2m-N) in accordance with US Army Corps of Engineers methodology for the measurement of Torsional Rigidity. (6) Aperture tolerance: within +/- 10% coefficient of variance) (7) Custom Length Orders can be accommodated.

#### TITAN TE-BX 15PP Typical Applications:

- Road sub-base reinforcement
- Soil stabilization over soft soils
- Heavy duty pavements
- Foundation Support
- Improvement of access roads to oil platforms
- Railway ballast reinforcement over soft foundations
- Parking lot stabilizations
- Temporary military road improvement
- Secondary slope and wall reinforcement

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