



Product Specification - Biaxial Geogrid BX1300

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Product Type: Integrally Formed Biaxial Geogrid
Polymer: Polypropylene
Load Transfer Mechanism: Positive Mechanical Interlock
Primary Applications: Spectra System (Base Reinforcement, Subgrade Improvement)

Product Properties

Index Properties	Units	MD Values ¹	XMD Values ¹
▪ Aperture Dimensions ²	mm (in)	46 (1.8)	64 (2.5)
▪ Minimum Rib Thickness ²	mm (in)	1.27 (0.05)	1.27 (0.05)
▪ Tensile Strength @ 2% Strain ³	kN/m (lb/ft)	5.5 (380)	9.5 (650)
▪ Tensile Strength @ 5% Strain ³	kN/m (lb/ft)	10.5 (720)	17.5 (1,200)
▪ Ultimate Tensile Strength ³	kN/m (lb/ft)	16.0 (1,100)	28.0 (1,920)
Structural Integrity			
▪ Junction Efficiency ⁴	%	93	
▪ Flexural Stiffness ⁵	mg-cm	450,000	
▪ Aperture Stability ⁶	kg-cm/deg	5.8	
Durability			
▪ Resistance to Installation Damage ⁷	%SC / %SW / %GP	91 / 83 / 72	
▪ Resistance to Long Term Degradation ⁸	%	100	
▪ Resistance to UV Degradation ⁹	%	100	

Dimensions and Delivery

The biaxial geogrid shall be delivered to the jobsite in roll form with each roll individually identified and nominally measuring 4.0 meters (13.1 feet) in width and 50.0 meters (164 feet) in length. A typical truckload quantity is 180 rolls.

Notes

- Unless indicated otherwise, values shown are minimum average roll values (MARV) determined in accordance with ASTM D4759. The column labeled MD Values represents results from testing the product in the Machine Direction. The column labeled XMD Values represents results from testing the product in the Cross-Machine (Transverse) Direction.
- Nominal dimensions.
- True resistance to elongation when initially subjected to a load determined in accordance with ASTM D6637 without deforming test materials under load before measuring such resistance or employing "secant" or "offset" tangent methods of measurement so as to overstate tensile properties.
- Load transfer capability determined in accordance with GRI-GG2-87 and expressed as a percentage of ultimate tensile strength.
- Resistance to bending force determined in accordance with ASTM D5732-95, using specimens of width two ribs wide, with transverse ribs cut flush with exterior edges of longitudinal ribs (as a "ladder"), and of length sufficiently long to enable measurement of the overhang dimension. . The overall Flexural Stiffness is calculated as the square root of the product of MD and XMD Flexural Stiffness values.
- Resistance to in-plane rotational movement measured by applying a 20 kg-cm moment to the central junction of a 9 inch x 9 inch specimen restrained at its perimeter in accordance with U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity.
- Resistance to loss of load capacity or structural integrity when subjected to mechanical installation stress in clayey sand (SC), well graded sand (SW), and crushed stone classified as poorly graded gravel (GP). The geogrid shall be sampled in accordance with ASTM D5818 and load capacity shall be determined in accordance with ASTM D6637.
- Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
- Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355.

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