



Reinforcement

ADS BX114 BIAXIAL GEOGRID SPECIFICATION

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

Product Properties

Index Properties	Unit	MD Values ¹	XMD Values ¹
Aperture Dimensions ²	in (mm)	1.0 (25)	1.3 (33)
Minimum Rib Thickness ²	in (mm)	0.03 (0.76)	0.03 (0.76)
Tensile Strength @ 2% Strain ³	lb/ft (kN/m)	280 (4.1)	450 (6.6)
Tensile Strength @ 5% Strain ³	lb/ft (kN/m)	580 (8.5)	920 (13.4)
Ultimate Tensile Strength ³	lb/ft (kN/m)	850 (12.4)	1,300 (19.0)

Structural Integrity

Index Properties	Unit	MD Values ¹
Junction Efficiency ³	%	93
Flexural Stiffness ⁵	mg-cm	250,000
Aperture Stability ⁶	m-N/deg	0.32

Durability

Index Properties	Unit	MD Values ¹
Resistance to Installation Damage ⁷	%SC / %SW / %GP	95 / 93 / 90
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 12.5' (3.8 m) in width and 328' (100 m) in length. A typical truckload quantity is 240 rolls.

Notes:

- Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
- Nominal dimensions.
- True resistance to elongation when initially subjected to a load determined in accordance with ASTM D6637-01 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-GG2-05 and expressed as a percentage of ultimate tensile strength.
- Resistance to bending force determined in accordance with ASTM D5732-01, 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 SMD Flexural Stiffness values.
- Resistance to in-plane rotational movement measured by applying a 20 kg-cm (2 m-N) 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 D5818-06 and load capacity shall be determined in accordance with ASTM D6637-01.
- 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 D4355-05.