

Geosynthetics

Biaxial Geogrids

Biaxial geogrids offer improved roadway solutions based on time-tested design principles. ADS BX Geogrids add strength and stability to the soil layers via confinement of the soil particles. Whether paved or unpaved, ADS BX Geogrids provide two unique yet related functions of soil stabilization and base reinforcement. The full ADS BX Geogrids product line includes BX11, BX12, BX13, BX15, BX41 and BX42.

When faced with soft soils, ADS Geogrids offer solutions to deep undercutting or chemical stabilization to greatly reduce the overall cost of construction. When constructing roadways over a firm subgrade, ADS BX Geogrids enhance pavement life, reduce required aggregate and pavement thickness. The high-tensile strength and junction efficiency confine and restrain aggregate from lateral movement.*

Applications

- Highways/Roadways/Haul Roads
- Base Stabilization
- Airport Runways/Taxiways
- Slope Stabilization/MSE Walls
- Soft Soil Land Stabilization
- Wind Farms

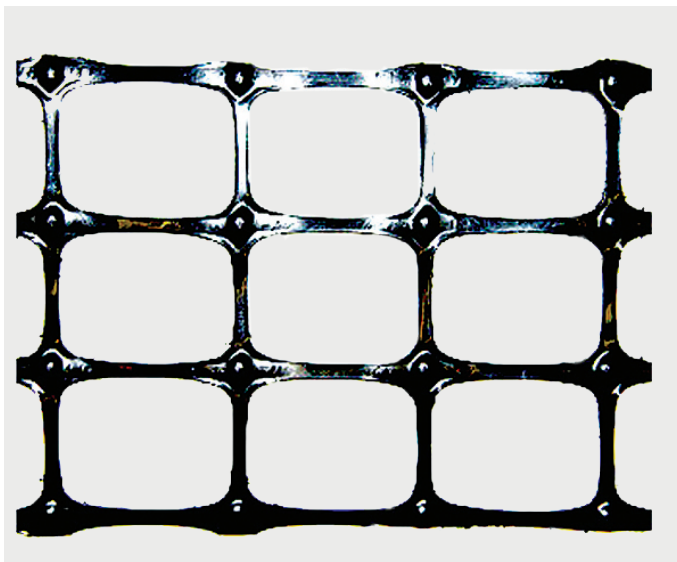
Features

- Increases roads' service life
- Stabilizes soft roads
- Corrosion and abrasion resistant

Benefits

- Saves money on projects by reducing aggregate thickness, sub-grade material thickness and undercuts

** Contact your local sales representative for product availability.*



Geosynthetics Biaxial Geogrid Product Specification (ADS BX114 and ADS BX124)

Scope

This specification describes the ADS BX114 and ADS BX124.

Product Type

Geogrids are integrally formed biaxial geogrids.

Polymer

Geogrids are comprised from a single sheet of pre-extruded polypropylene using a punched and drawn process.

Load Transfer Mechanism

Geogrids utilize a positive mechanical interlock.

Primary Applications

Geogrids are utilized for base reinforcement and subgrade improvement.

		ADS BX114		ADS BX124	
Index Properties	Unit	MD Values ¹	XMD Values ¹	MD Values ¹	MD Values ¹
Aperture Dimensions ²	mm (in)	25 (1.0)	33 (1.3)	25 (1.0)	33 (1.3)
Minimum Rib Thickness ²	mm (in)	0.76 (0.03)	0.76 (0.03)	1.27 (0.05)	1.27 (0.05)
Tensile Strength @ 2% Strain ³	kN/m (lb/ft)	4.1 (280)	6.6 (450)	6.0 (410)	9.0 (620)
Tensile Strength @ 5% Strain ³	kN/m (lb/ft)	8.5 (580)	13.4 (920)	11.8 (810)	19.6 (1,340)
Ultimate Tensile Strength ³	kN/m (lb/ft)	12.4 (850)	19.0 (1,300)	19.2 (1,310)	28.8 (1,970)
Structural Integrity					
Junction Efficiency ⁴	%	93		93	
Flexural Stiffness ⁵	mg-cm	250,000		750,000	
Aperture Stability ⁶	m-N/deg	0.32		0.65	
Durability					
Resistance to Installation Damage ⁷	%SC/%SW/%GP	95/93/90		95/93/90	
Resistance to Long Term Degradation ⁸	%	100		100	
Resistance to UV Degradation ⁹	%	100		100	

1. 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.

2. Nominal dimensions.

3. 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.

4. Load transfer capability determined in accordance with GRI-GG2-05 and expressed as a percentage of ultimate tensile strength.

5. Resistance to bending force determined in accordance with ASTM 5732-01, 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 XMD Flexural Stiffness values.

6. Resistance to in-plane rotational movement measured by applying a 2m-N (20 kg-cm) moment to the central junction of a 9" x 9" (225 mm x 225 mm) specimen restrained at its perimeter in accordance with U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity.

7. 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.

8. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.

9. 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.



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