

# Syntec Biaxial Geogrid SBx 42

Syntec SBx 42 is a integrally formed biaxial geogrid made from the highest quality polypropylene resin. Syntec SBx Geogrids offer the most economical, expedient, and reliable solution to stabilize weak soils or reinforce aggregate base materials. SBx geogrids confine stone and soil particles to prevent lateral shearing. When used, vehicular and other loads are spread over a much broader surface area, thus reducing the pressure applied to the subgrade.

## Product Specifications

Index Property	Units	MD Values <sup>(1)</sup>	XMD Values <sup>(1)</sup>
Aperture Dimensions <sup>(2)</sup>	mm (in)	33 (1.3)	33 (1.3)
Minimum Rib Thickness <sup>(2)</sup>	mm (in)	1.27 (0.05)	1.27 (0.05)
Tensile Strength at 2% Strain <sup>(3)</sup>	kN/m (lb/ft)	5.5 (380)	7.4 (510)
Tensile Strength at 5% Strain <sup>(3)</sup>	kN/m (lb/ft)	10.5 (720)	14.6 (1,000)
Ultimate Tensile Strength <sup>(3)</sup>	kN/m (lb/ft)	20.5 (1,400)	23.5 (1,610)
Structural Integrity	Units	MD Values	XMD Values
Junction Efficiency <sup>(4)</sup>	%	93	
Flexural Stiffness <sup>(5)</sup>	mg-cm	750,000	
Aperture Stability <sup>(6)</sup>	m-N/deg	0.48	
Durability			
Resistance to Installation Damage <sup>(7)</sup>	%SC / %SW / %GP	90/83/75	
Resistance to Long Term Degradation <sup>(8)</sup>	%	100	
Resistance to UV Degradation <sup>(9)</sup>	%	100	
Roll Dimensions and Delivery			
The biaxial geogrid shall be delivered to the job site in roll form with each roll individually identified and nominally measuring 3.0 m (9.8 ft) or 4.0 m (13.1 ft) in width and 50 m (164 ft) in length.			

NOTES:

- <sup>(1)</sup> Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759. Brief descriptions of test procedures are given in the following notes.
- <sup>(2)</sup> Nominal dimensions
- <sup>(3)</sup> 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.
- <sup>(4)</sup> Load transfer capability determined in accordance with GRI-GG2-05 and expressed as a percentage of ultimate tensile strength.
- <sup>(5)</sup> Resistance to bending force determined in accordance with ASTM D7748, 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.
- <sup>(6)</sup> 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.
- <sup>(7)</sup> 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.
- <sup>(8)</sup> Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments.
- <sup>(9)</sup> 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.



**AT THE CORE:**  
A biaxial geogrid engineered specifically for subgrade stabilization and base reinforcement.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.



**[ DURABILITY RUNS DEEP ]** For more information on this product and others, please visit us at [GSEworld.com](http://GSEworld.com), call 800.435.2008 or contact your local sales office.