

Mirafi® BXG110

Mirafi® BXG110 geogrid is composed of polypropylene resin which is extruded, punched and drawn into a grid structure. Mirafi® BXG110 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

TenCate Geosynthetics Americas Laboratories are accredited by Geosynthetic Accreditation Institute – Laboratory Accreditation Program ([GAI-LAP](#)).

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate) ¹	ASTM D6637	lbs/ft (kN/m)	850 (12.4)	1300 (19.0)
Tensile Strength (at 2% strain) ¹	ASTM D6637	lbs/ft (kN/m)	280 (4.1)	450 (6.6)
Tensile Strength (at 5% strain) ¹	ASTM D6637	lbs/ft (kN/m)	580 (8.5)	920 (13.4)
Junction Strength ²		lbs/ft (kN/m)		
Junction Efficiency ²		%	93	
Flexural Rigidity ³		mg-cm	250,000	
Aperture Stability ⁴		m-N/deg	0.32	
Resistance to Installation Damage ⁵		% SC/%SW/%GP	95 / 93/ 89	
Resistance to Long Term Degradation ⁶		%	100	
Resistance to UV Degradation ⁷		%	100	

¹ 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.

² Load transfer capability expressed as a percentage of ultimate tensile strength.

³ 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 Rigidity is calculated as the square root of the product of MD and CD Flexural Rigidity values.

⁴ 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 GRI GG9.

⁵ 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.

⁶ Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.

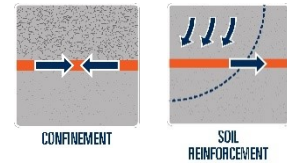
⁷ Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355.

Physical Properties	Unit	Typical Value	
Rib Thickness	in (mm)	0.03 (0.76)	0.03 (0.76)
Grid Aperture Size (MD)	in (mm)	1.0 (25.4)	
Grid Aperture Size (CMD)	in (mm)	1.3 (33.0)	
Roll Dimensions (width x length)	ft (m)	13 x 246 (3.95 x 75)	
Roll Area	yd ² (m ²)	355 (296)	
Mass/Weight	oz (g ²)	5.7(193)	

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Mirafi® BXG120

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Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate) ¹	ASTM D6637	lbs/ft (kN/m)	1310 (19.2)	1970 (28.8)
Tensile Strength (at 2% strain) ¹	ASTM D6637	lbs/ft (kN/m)	410 (6.0)	620 (9.0)
Tensile Strength (at 5% strain) ¹	ASTM D6637	lbs/ft (kN/m)	810 (11.8)	1340 (19.6)
Junction Efficiency ²		%	93	
Flexural Rigidity ³		mg-cm	750,000	
Aperture Stability ⁴		m-N/deg	0.65	
Resistance to Installation Damage ⁵		% SC/%SW/%GP	95 / 93/ 90	
Resistance to Long Term Degradation ⁶		%	100	
Resistance to UV Degradation ⁷		%	100	

¹ 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 to overstate tensile properties.

² Load transfer capability expressed as a percentage of ultimate tensile strength.

³ 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 Rigidity is calculated as the square root of the product of MD and CD Flexural Rigidity values.

⁴ 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 GRI GG9.

⁵ 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.

⁶ Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.

⁷ 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.

Physical Properties	Unit	Typical Value	
Rib Thickness	in (mm)	0.05 (1.27)	0.05 (1.27)
Grid Aperture Size (MD)	in (mm)	1.0 (25.4)	
Grid Aperture Size (CMD)	in (mm)	1.3 (33.0)	
Roll Dimensions (width x length)	ft (m)	13 x 164 (3.95 x 50)	
Roll Area	yd ² (m ²)	237 (200)	

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