

Product Specification - Structural Geogrid BX161060

PRODUCT PROPERTIES	TEST METHODS	UNITS		MD¹	TD¹
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Characteristics

Type	NA ²	NA	Single layer		
Manufacturing Process	NA	NA	Integrally Formed		
Material			Extruded, punched & Drawn		
Coating Type	NA	NA	Polypropylene	NA	NA
Carbon Black	ASTM 4218	%	2		
Roll Width	NA	ft/m	13.1 / 4.0		
Roll Length	NA	ft/m	164 / 50		
Roll Weight	NA	lbs / kg	149 / 67.59		
Unit Weight	ASTM D5261	oz/yd ² / gm/m ²	9.9 / .34		
Shipping Quantities (approx)					
Truckload (53-ft van)	NA	roll	180		
Truckload (48-ft van)	NA	roll	180		
Truckload (flatbed w/ stakes)	NA	roll	150		
Container (40-ft High Cube)	NA	roll	120		

Geometry				MD⁵	TD⁵
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Aperture Size (nominal)	Calipered	in / mm		1.7 / 43.2	1.9 / 48.3
Open Area (nominal)	Measured	%	75		
Rib Thickness (nominal)	Calipered	in / mm		.06 / 1.58	.06 / 1.58
Rib Shape	NA	NA	square / rectangular		
Junction Thickness (nominal)	Calipered	in / mm		.21 / 5.24	.21 / 5.24

Load Capacity

True Initial Modulus in Use	ASTM D6637-01	lb/ft / kN/m		32,900 / 480	32,900 / 480
Tensile Strength at 2% Strain	ASTM D6637-01	lb/ft / kN/m		450 / 6.5	450 / 6.5
Tensile Strength at 5% Strain	ASTM D6637-01	lb/ft / kN/m		820 / 12.0	820 / 12.0
Ultimate Tensile Strength	ASTM D6637-01	lb/ft / kN/m		1575 / 23	1575 / 23
Creep Limited Strength	ASTM D5262	lb/ft / kN/m		NEED	DATA ³
Long Term Design Strength	GRI:GG4	lb/ft / kN/m		NEED	DATA ³

Structural Integrity

Junction Strength	GRI:GG2-87	lb/ft / kN/m		1,470 / 21.5	1,470 / 21.5
Junction Efficiency	GRI:GG2-87	%		98	98
Flexural Stiffness (overall)	ASTM D5732-95 ⁶	mg-cm	750,000		
Aperture Stability (Torsional Rigidity)	Kinney-01	N-m/deg	6		

Durability

Resistance to Installation Damage	ASTM D5818, D6637	% ⁴	91 / 83 / 71		
Resistance to Long Term Degradation	EPA 9090	%	1007		
Resistance to UV Degradation	ASTM O4335	hrs.	>500		

1. Unless otherwise noted, values given are Minimum Average Roll Values (MARV) measured in accordance with ASTM D4759.

2. NA = Not Applicable

3. Test data has not been maintained for Creep Limited Strength and Long Term Design Strength for BX161060

4. Values reported are for USCS soil types SC, SW and GP respectively; where SC = clayey sand, SW = well graded sand, GP = poorly graded gravel

5. MD = Machine Direction; TD = Transverse Direction

6. Or ASTM D1388, Method A. Both tests are intended for fabrics, and therefore require modification for geogrids.

7. Many public transportation agencies allow no more than (1/1.1 =) 90.9 for design purposes