



construction managers

general contractors

design builders

SUBMITTAL REVIEW
Project # 417 The Residences at Echelon

Date: September 11, 2017

Submittal Number: 31-2000-02-a
Geogrid

Sequence Number: 12

Subcontractor: Kat Excavation
Bart Fisher

Submit To: NSPJ Architects
Tim Hauschild
Clint Evans

SUBMITTAL FOR APPROVAL	
Job Name/No: <u>417 The Residences at Echelon</u>	
<input checked="" type="checkbox"/> REVIEWED	<input type="checkbox"/> REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED& NOTED	<input type="checkbox"/> REJECTED
<small>Submittal received for general compliance with the Contract Documents. Contractor's review does not relieve sub/vendor of responsibility for dimension, quantities, accuracy or completion of submittals or from any responsibilities required by terms and conditions of Subcontract/PO with Luke Draily Construction Co., Inc.. Sub/Vendors shall follow all manufacturer installation instructions. Installing contractor shall be responsible to coordinate with trades for hookup, supports, routing, etc.</small>	
By: <u>JDW</u>	Date: _____

Engineering Solutions	Shop Drawing Review
Project: _____	Date: <u>9/12/17</u>
Submittal # <u>GE-GRID</u>	By: <u>MIS</u>
<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> REJECTED
<input type="checkbox"/> APPROVED AS NOTED	

TENAX LBO SAMP

Type: 202

Single Layer Bi-axial Geogrids *(Now available in the USA)*

TENAX LBO 202 SAMP are polypropylene geogrids especially designed for soil stabilization and reinforcement applications.

LBO 202 SAMP geogrids are manufactured from a unique process of extrusion and biaxial orientation to enhance their tensile properties.

TENAX LBO 202 SAMP geogrids feature consistently high tensile strength and modulus, excellent resistance to construction damages and environmental exposure. Furthermore, the geometry of TENAX LBO 202 SAMP geogrids allows strong mechanical interlock with the soil being reinforced.

Typical applications

Soft soil stabilization, base reinforcement, embankments over soft soils, working platforms, haul roads

PHYSICAL CHARACTERISTICS	TEST METHOD	DATA
STRUCTURE		SINGLE LAYER BI-AXIAL GEOGRIDS
MESH TYPE		RECTANGULAR APERTURES
STANDARD COLOR		BLACK
POLYMER TYPE		POLYPROPYLENE
UV STABILIZER	ASTM D 4218	CARBON BLACK
PACKAGING	ISO 10320	ROLLS IN POLYETHYLENE BAGS WITH I.D. LABEL

DIMENSIONAL CHARACTERISTICS	TEST METHOD	UNIT	LBO 202 SAMP	NOTES
THICKNESS: JUNCTION	ASTM D 1777	in (mm)	0.12 (3.0)	b
THICKNESS: RIB MD/TD		in/in (mm/mm)	0.04/0.04 (1.0/1.0)	b,d
MESH SIZE MD		in (mm)	1.06 (27)	b,d
MESH SIZE TD		in (mm)	1.45 (37)	b,d
OPEN AREA	CW 02215	%	75	b
ROLL WIDTH		ft (m)	13.1 (4.0)	b
ROLL LENGTH		ft (m)	328.1 (100)	b
ROLL AREA		ft ² (m ²)	4305.6 (400)	b
GROSS ROLL WEIGHT		lbs (kg)	201.7 (91.5)	b

TECHNICAL CHARACTERISTICS	TEST METHOD	UNIT	LBO 202 SAMP		NOTES
			MD	TD	
TENSILE STRENGTH AT 2% STRAIN	ASTM D 6637	lbs/ft (kN/m)	281.0 (4.1)	452.4 (6.6)	a,c,d
TENSILE STRENGTH AT 5% STRAIN	ASTM D 6637	lbs/ft (kN/m)	582.6 (8.5)	925.3 (13.5)	a,c,d
TENSILE MODULUS AT 2% STRAIN	ASTM D 6637	lbs/ft (kN/m)	14050 (205)	22618 (330)	a,c,d
TENSILE MODULUS AT 5% STRAIN	ASTM D 6637	lbs/ft (kN/m)	11651 (170)	18505 (270)	a,c,d
PEAK TENSILE STRENGTH	ASTM D 6637	lbs/ft (kN/m)	891 (13.0)	1405 (20.5)	a,c,d
JUNCTION EFFICIENCY	GRI-GG2	%	93		
FLEXURAL RIGIDITY	ASTM D 1388	mg-cm	500000		
TORSIONAL RIGIDITY	US ARMY	kg-cm/deg	3.20		
RESISTANCE TO INSTALLATION DAMAGE	ASTM D 5818	%SC/%SW/%GP	>95/>95/>95		
RESISTANCE TO UV DEGRADATION	ASTM D 4355	%	100		

NOTES:

a) Minimum rolls values determined in accordance with ASTM D 4759 b) Typical values c) Tests performed using extensometers d) MD: machine direction (longitudinal to the roll) TD: transversal direction (across roll width)



The TENAX Laboratory has been operational since 1980 and has been continuously improved with the purpose of assuring unequalled technical development of the products and accurate Quality Control. The TENAX Laboratory can perform mechanical, hydraulic and durability tests, according to the most important international standards like ISO, CEN, ASTM, DIN, BSI, UNI.

TENAX

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