

LBO 302 (Type 2)

Bi-axial Geogrid

Polypropylene

TENAX LBO 302 are polypropylene geogrids especially designed for soil stabilization and reinforcement applications. LBO 302 geogrids are manufactured from a unique process of extrusion and biaxial orientation to enhance their tensile properties. TENAX LBO 302 geogrids feature consistently high tensile strength and modulus, excellent resistance to construction damages and environmental exposure.

Typical Applications

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

PRODUCT PROPERTIES

Index Properties	Units	MD Values ¹	XMD Values ¹
Aperture Dimensions ²	mm (in)	25 (1.0)	33 (1.3)
Minimum Rib Thickness ²	mm (in)	1.27 (0.05)	1.27 (0.05)
Tensile Strength @ 2% Strain ³	kN/m (lb/ft)	6.0 (410)	9.0 (620)
Tensile Strength @ 5% Strain ³	kN/m (lb/ft)	11.8 (810)	19.6 (1,340)
Ultimate Tensile Strength ³	kN/m (lb/ft)	19.2 (1,310)	28.8 (1,970)

STRUCTURAL INTEGRITY

Junction Efficiency ⁴	%	93
Flexural Stiffness ⁵	mm-cm	750,000
Aperture Stability ⁶	m-N/deg	0.65

DURABILITY

Resistance to Installation Damage ⁷	%SC/%SW/%GP	95/93/90
Resistance to Long Term Degradation ⁸	%	100
Resistance to UV Degradation ⁹	%	100

DIMENSIONS AND DELIVERY

The biaxial geogrid shall be delivered to the jobsite in roll form with each roll individually identified and nominally measuring 4m (13.1-FT) or 4.87m (16-FT) in width and 50m (165-FT) in length.

Notes

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 D5732-01, 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 MD and XMD flexural stiffness values.
6. Resistance to in-plane rotational movement measured by applying a 20 kg-cm (2 m-N) moment to the central junction of a 9-IN x 9-IN specimen restrained at its perimeter in accordance with US Army Corps of Engineers Methodology for measurement of torsional rigidity.
7. Resistance to loss of load capacity and 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.
9. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light aggressive weathering in accordance with ASTM D4355-05.

Tenax warrants that the geogrid products delivered hereunder conforms to the stated specification at the time of delivery. All other warranties including claims for performance or suitability for application are excluded. This product specification supersedes all prior specifications for the product described above and is not applicable for products shipped before November 2014.

