

TENAX LBO HM 3

Bi-oriented geogrids



TENAX LBO HM geogrids are HIGH MODULUS (HM) bi-oriented geogrids especially designed for soil stabilisation and reinforcement applications.

TENAX LBO HM geogrids are manufactured using a unique process of extrusion and biaxial orientation to enhance their tensile properties and overall performance when operating at low strains of 0.5% and 2%.

They are manufactured from polypropylene (PP) and tested to maintain a high tensile modulus, high strength junction, as well as an increased durability against installation damage.

Typical applications

Ground stabilisation reinforcement leading to a reduction of required structural fill in applications such as: airport foundation layers, railway construction layers, road pavement design, foundation and piling platform designs. TENAX GeoRaft structures for reinforced soil mattress and other solutions involving control of differential settlements.

PHYSICAL CHARACTERISTICS	TEST METHOD	UNIT	DATA	NOTES
STRUCTURE			BI-ORIENTED GEOGRIDS	
MESH TYPE			RECTANGULAR APERTURES	
STANDARD COLOR			BLACK	
POLYMER TYPE			POLYPROPYLENE	
CARBON BLACK CONTENT	ASTM D4218		2.0%	
PACKAGING	ISO 10320		ROLLS IN POLYETHYLENE BAGS WITH I.D. LABEL	

DIMENSIONAL CHARACTERISTICS	TEST METHOD	UNIT	LBO HM 3	NOTES
APERTURE SIZE MD		mm	40	b,d,e
APERTURE SIZE TD		mm	27	b,d,e
ROLL WIDTH		m	4.0	b
ROLL LENGTH		m	75	b
ROLL DIAMETER		m	0.45	b
ROLL VOLUME		m ³	0.81	b

TECHNICAL CHARACTERISTICS	TEST METHOD	UNIT	LBO HM 3		NOTES
			MD	TD	
STRENGTH AT 0.5% STRAIN	ISO 10319	kN/m	5.0	5.0	a,c,d
STRENGTH AT 2% STRAIN	ISO 10319	kN/m	12.0	12.0	a,c,d
RESISTANCE TO CHEMICAL DEGRADATION	EN 14030	%	100		b
RESISTANCE TO WEATHERING	EN 12224	%	100		b

NOTES:

- a) Tensile Tolerance: ± 1 kN/m
- b) Typical values
- c) Tests performed using extensometers
- d) MD: machine direction (longitudinal to the roll); TD: transverse direction (across roll width)
- e) Aperture Tolerance: ± 3 mm



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The TENAX Laboratory has been created in 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.

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