TENAX 3D Grid

Type: MS

Bi-oriented geogrids

TENAX 3D Grid MS are polypropylene geogrids especially designed for soil stabilization and reinforcement applications.
The 3D Grid MS geogrids are manufactured from a unique process of extrusion and biaxial orientation to enhance their tensile properties. TENAX 3D Grid MS features consistently high tensile strength and modulus, excellent resistance to construction damages and environmental exposure. Furthermore, the geometry of the TENAX 3D Grid MS allows strong mechanical interlock with the soil being reinforced.

Typical applications

Base reinforcement; reduction of required structural fill; load distribution; reduction of mud pumping; subgrade stabilization; embankment stabilization; slope reinforcement; erosion control mattresses.

PHYSICAL CHARACTERISTICS	TEST METHOD	UNIT	DATA	NOTES
STRUCTURE			LAYERS of BI-ORIENTED GEOGRIDS EXTRUDED TOGETHER	
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	3D Grid MS	NOTES
APERTURE SIZE MD		mm	53	a,c,d
APERTURE SIZE TD		mm	38	a,c,d
THICKNESS at 2kPa	ISO 9893	mm	5.20	a,e
ROLL WIDTH		m	4.0	
ROLL LENGTH		m	50.0	

TECHNICAL CHARACTERISTICS	TEST METHOD	UNIT	3D Grid MS		NOTES
			MD	TD	
STIFFNESS at 0.5 % STRAIN	ISO 10319	kN/m	250	450	a,b,c
RESISTANCE TO INSTALLATION DAMAGE	ISO 10722-1	%	100	95	a
RESISTANCE TO CHEMICAL DEGRADATION	EN 14030	%	100	100	a
RESISTANCE TO WEATHERING	EN 12224	%	100		a
APPARENT COEFFICIENT OF FRICTION SOIL/GEOSYNTHETICS (μs/gsy)	EN 13738		1.25		a,f

NOTES:
a) Typical values
b) Tests performed using extensometers
c) MD: machine direction (longitudinal to the roll)
TD: transverse direction (across roll width)
d) Aperture tolerance: ± 3 mm
e) Thickness tolerance: ± 0.50 mm
f) Pullout testing in accordance to EN 13738 using special apparatus that measures the force required to pull-out a geogrids that is fully embedded in soil. Vertical stress 10 kPa

0799-CPD-25

The TENAX Laboratory has been operational since 1980 and has been continuously improved with the purpose of assuring comprehensive 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 SpA
Geosynthetics Division
Via dell'Industria, 3
I-23897 Viganò (LC) ITALY
Tel. +39 039.9219307
Fax +39 039.9219200
e-mail: geo@tenax.net
Web Site: www.tenax.net

TENAX International B.V.
Geosynthetics Division
Viale S. Franscini, 19
CH-6900 Lugano SWITZERLAND
Tel. +41 091.9233412
Fax +41 091.9237517
e-mail: geo@tenax.ch
Web Site: www.tenax.net