TENAX **3D Grid**

Type: **S**

Bi-oriented geogrids

TENAX **3D Grid S** is manufactured from a unique extrusion technique resulting in a perforated polypropylene sheet that is specifically shaped in three directions (3D). This unique extrusion technique produces a structure with vertical longitudinal ribs capable to guarantee the best possible interaction mechanism between geogrids and granular soils by restricting the horizontal movement of soil particles and preventing further displacements. This increase in interaction from the **3D Grids** enables consistent reductions in aggregate layer thickness.

Typical applications

Ground stabilisation and sub-base reinforcement for permanent roads, unpaved and temporary access roads, safe working platforms as well as piled platforms.

PHYSICAL CHARACTERISTICS	TEST METHOD	UNIT	DATA	NOTES
STRUCTURE			BI-ORIENTED GEOGRIDS	
MESH TYPE			QUADRANGULAR 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 S		NOTES
			MD	TD	
APERTURE SIZE		mm	30	30	a,c,d
RIB THICKNESS		mm	4.0	1.5	a,c,e
JUNCTION THICKNESS		mm	6.0		a
ROLL WIDTH		m	3.85 / 4.0		a
ROLL LENGTH		m	75 / 50		

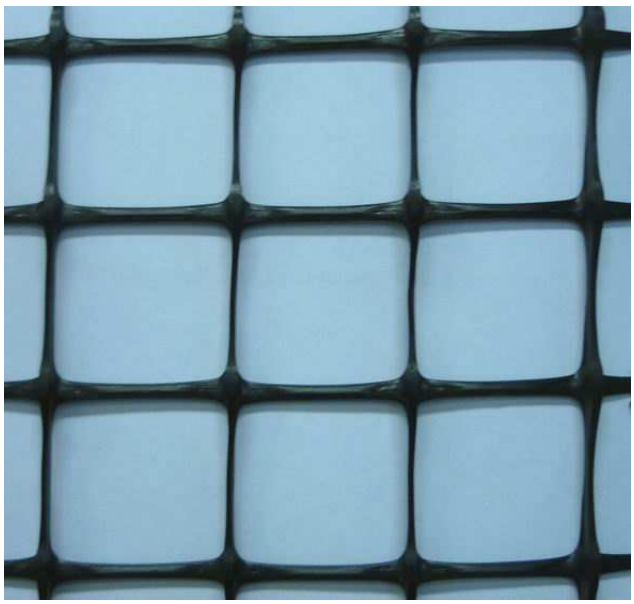
TECHNICAL CHARACTERISTICS	TEST METHOD	UNIT	3D Grid S		NOTES
			MD	TD	
STIFFNESS at 0.5 % STRAIN	ISO 10319	kN/m	550	350	a,b,c
RESISTANCE TO CHEMICAL DEGRADATION	EN 14030	%	100		a
RESISTANCE TO WEATHERING	EN 12224	%	100		a
APPARENT COEFFICIENT OF FRICTION SOIL/GEOSYNTHETICS (μs/gsy)	EN 13738		1.25		a,f

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: ± 5 mm
e) Thickness Tolerance: - 5%
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

Typical Characteristics

TENAX 3D Grid S



0799-CPR-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.

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