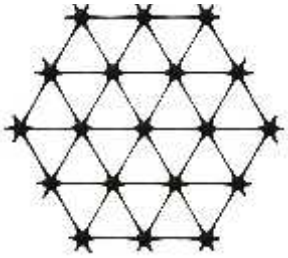
Product Specification - FilterGrid™ FG90

Tensar TriAx® Geogrid



FilterGrid™ is a composite geosynthetic consisting of a nonwoven geotextile bonded to Tensar TriAx geogrid. This product combines the most advanced TriAx geogrid technology with the added functionality of a geotextile for applications where site conditions require additional filtration and/or separation.

General

1. The needle punched nonwoven geotextile (nominal 6 oz/sy) is thermally bonded to the geogrid and is manufactured at a NTPEP audited facility.
2. Geogrid is manufactured from a punched polypropylene sheet, which is then oriented in three substantially equilateral directions so that the resulting ribs shall have a high degree of molecular orientation, which continues at least in part through the mass of the integral node.
3. The properties contributing to the performance of a mechanically stabilized layer include the following:

Index Properties[1] - Geogrid	Longitudinal	Diagonal	Transverse	General
▪ Rib pitch[(2)], mm (in)	60 (2.40)	60 (2.40)		
▪ Aperture shape				Rectangular Triangular
Structural Integrity				
▪ Junction efficiency[(3)], %				93
▪ Isotropic Stiffness Ratio[(4)]				0.6
▪ Overall Flexural Rigidity[(5)], mg-cm				1,500,000
▪ Radial stiffness at low strain[(6)], kN/m @ 0.5% strain, (lb/ft @ 0.5% strain)				350 (23,989)
Durability				
▪ Resistance to chemical degradation[(7)]				100%
▪ Resistance to ultra-violet light and weathering[(8)]				70%

Index Properties - Geotextile	Test Method	English (MARV[2])	Metric (MARV[2])
▪ Grab Tensile Strength	ASTM D 4632	160lbs.	0.711 kN
▪ Grab Elongation	ASTM D 4632	50%	50%
▪ Trapezoid Tear Strength	ASTM D 4533	60 lbs.	0.267 kN
▪ CBR Puncture Resistance	ASTM D 6241	410 lbs.	1.823 kN
▪ Permittivity	ASTM D 4491	1.5 sec^{-1}	1.5 sec^{-1}
▪ Water Flow	ASTM D 4491	110 gmp/ft^2	4480 l/min/m^2
▪ Apparent Opening Size (AOS)	ASTM D 4751	70 Std. U.S. Sieve	0.212 mm
▪ UV Resistance	ASTM D 4355	70%/500 hrs.	70%/500 hrs.

Dimensions and Delivery

The FilterGrid™ shall be delivered to the jobsite in roll form with each roll individually identified. Rolls are shipped with nominal measurements: Equal to 4.0 meters (13.1 feet) in width by 50 meters (164 feet) in length. The width of the attached geotextile is 3.81 meters (12.5 feet). All Index properties are measured prior to bonding.

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. Load transfer capability determined in accordance with ASTM D6637-10 and ASTM D7737-11 and expressed as a percentage of ultimate tensile strength.
4. The ratio between the minimum and maximum observed values of radial stiffness at 0.5% strain, measured on rib and midway between rib directions.
5. Determined in accordance with ASTM D7748/D7748M-14
6. Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing in accordance with ASTM D6637-10.
7. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
8. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

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