

TENSAR® FILTERGRID™ GEOGRID

Design and build with confidence; we empower you to achieve cost-effective, proven, engineered solutions. Fueled by an innovative spirit, our industry-leading technology solves the toughest soil stabilization, earth reinforcement, and site development challenges.

Tensar's FilterGrid™ solutions combine the superior performance of Tensar's InterAx™ and TriAx® technology with the added assurance of a non-woven geotextile – all in a single composite product.

April 2023		Tensar® TriAx™ FilterGrid™ Geogrid				
Material Properties	Style		FG7	FG30	FG60	TX190L
	Rib pitch ⁽²⁾	Tansverse	40 mm (1.60 in)	33 mm (1.30 in)	40 mm (1.60 in)	60 mm (2.40 in)
		Diagonal	40 mm (1.60 in)	33 mm (1.30 in)	40 mm (1.60 in)	60 mm (2.40 in)
	Mid-rib depth ⁽²⁾	Tansverse	1.6 mm (0.06 in)		1.4 mm (0.06 in)	
		Diagonal	2.0 mm (0.08 in)		1.6 mm (0.06 in)	
	Mid-rib width ⁽²⁾	Tansverse	1.3 mm (0.05 in)		1.2 mm (0.05 in)	
		Diagonal	1.0 mm (0.04 in)		1.0 mm (0.04 in)	
	Rib shape		Rectangle			
	Aperture shape		Triangular			
	Radial stiffness at low strain @5%			200 kN/m (13,708 lb/ft)	300 kN/m (20,580 lb/ft)	350 kN/m (23,989 lb/ft)
	Junction efficiency ⁽³⁾			93%	93%	
	Isotropic Stiffness Ratio ⁽⁴⁾			0.6	0.6	
	Resistance to chemical degradation ⁽⁶⁾			100%	100%	
	Resistance to ultra-violet light and weathering ⁽⁷⁾			70%	70%	
	Overall Flexural Rigidity ⁽⁵⁾					1,500,000 ma-cm

April 2023		Tensar® TriAx® FilterGrid™ Geotextile				
Material Properties	Style	Test Method	FG7	FG30	FG60	FG90
	Grab Tensile Strength	ASTM D 4632	160 lbs (0.711 kN)	120 lbs (0.553 kN)	160 lbs (0.711 kN)	160 lbs (0.711 kN)
	Grab Elongation	ASTM D 4632	50%	50%	50%	50%
	Trapezoid Tear Strength	ASTM D 4533	60 lbs (0.267 kN)	50 lbs (0.222 kN)	60 lbs (0.267 kN)	60 lbs (0.267 kN)
	CBR Puncture Resistance	ASTM D 6241	410 lbs (1.823 kN)	340 lbs (1.512 kN)	410 lbs (1.823 kN)	410 lbs (1.823 kN)
	Permittivity	ASTM D 4491	1.5 sec ⁻¹	1.7 sec ⁻¹	1.5 sec ⁻¹	1.5 sec ⁻¹
	Water Flow	ASTM D 4491	110 GPM/ft² (4480 l/min/m²)	120 GPM/ft² (4885 l/min/m²)	110 GPM/ft² (4480 l/min/m²)	110 GPM/ft² (4480 l/min/m²)
	Apparent Opening Size (AOS)	ASTM D 4751	70 Std. U.S. Sieve (0.212 mm)	70 Std. U.S. Sieve (0.212 mm)	70 Std. U.S. Sieve (0.212 mm)	70 Std. U.S. Sieve (0.212 mm)
	UV Resistance	ASTM D 4355	70%/500 hrs	70%/500 hrs	70%/500 hrs	70%/500 hrs

For up-to-date technical information, be sure to visit us online at www.LayfieldGroup.com

April 2023		Tensor® InterAx™ Geogrid	
Material Properties	Style	Test Method	<div>NX750</div> <div>NX850</div>
	Aperture shapes		Hexagonal, Trapezoidal, & Triangular
	Structure		Coextruded & Integrally Formed
	Rib Shape		Rectangular
	Continuous parallel rib pitch	Nominal	80 mm (3.2 in)
	Rib aspect ratio ²		> 1.0
	Node thickness	Nominal	<div>3.5 mm (0.14 in)</div> <div>4.5 mm (0.18 in)</div>
	Color identification		White / Black / White

April 2023		Tensor® InterAx™ FilterGrid™ Geotextile	
Material Properties	Style	Test Method	<div>NX750-FG</div> <div>NX850-FG</div>
	Grab Tensile Strength	ASTM D 4632	160 lbs (0.711 kN)
	Grab Elongation	ASTM D 4632	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
	Water Flow	ASTM D 4491	110 GPM/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

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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