



Synteen Technical Fabrics, Inc.



***SYNTEEN SF11 BIAXIAL GEOGRID***  
**BASE COURSE REINFORCEMENT AND SUBGRADE IMPROVEMENT**

SF11 is composed of high molecular weight, high tenacity multifilament polyester yarns, woven into a stable network placed under tension. The high strength polyester yarns are PVC coated and are inert to biological degradation and are resistant to naturally encountered chemicals, alkalis and acids.

REINFORCEMENT PROPERTIES		TEST METHOD	MARV VALUES	
			LB/FT	kN/m
Ultimate Strength	MD	ASTM 6637	2,388	34.9
	XMD		3,870	56.5
Initial Modulus	MD	ASTM 6637	178,000	2,598
	XMD		172,900	2,522
Load (Tensile Strength) at 2% Strain	MD	ASTM 6637	526	7.7
	XMD		578	8.4
2% Secant Moduli	MD	ASTM 6637	26,300	383.6
	XMD		28,900	421.5
Load (Tensile Strength) at 5% Strain	MD	ASTM 6637	792	11.5
	XMD		1,042	15.2
5% Secant Moduli	MD	ASTM 6637	15,840	231
	XMD		20,840	304
Aperture Stability – kg-cm/deg at 5.0 kg-cm		US COE	2.4	
Minimum Radial Stiffness at 0.5% Strain		ASTM 6637	172,900	2,522
Maximum Radial Stiffness at 0.5% Strain		ASTM 6637	178,000	2,598
Average Radial Stiffness at 0.5 % Strain Anticipated stiffness 45 degrees off the orthogonal axes tested. Representative of load spreading in all directions.		ASTM 6637	175,450	2,559
Junction Strength (lb./junction)	MD	GRI-GG2	59.4	0.87
	XMD		47.6	0.69
FHWA Sum of Junctions – Strength (81 total junctions)	MD	GRI-GG2	4,811	70.2
	XMD		3,856	56.2
FHWA Sum of Junctions – Efficiency	MD XMD	GRI-GG2	201% 100%	
Coefficient of Pullout Interaction		ASTM 6706 Sandy Gravel Sand	$C_i = 1.0$ $C_i = 1.0$	
Aperture Size	MD	Measured	1.0	25
	XMD		1.0	25
Roll Dimensions 12' x 150' 15' x 150' 17' x 150'		Measured	200 square yards per roll 250 square yards per roll 283 square yards per roll	

Synteen can produce custom widths, apertures and master roll lengths.

***Synteen Technical Fabrics, Inc.***  
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