



Synteen Technical Fabrics, Inc.



***SYNTEEN SF12 BIAXIAL GEOGRID***  
**BASE COURSE REINFORCEMENT AND SUBGRADE IMPROVEMENT**

SF12 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		5,268	76.8
Initial Modulus	MD	ASTM 6637	178,000	2,598
	XMD		235,000	3,432
Load (Tensile Strength) at 2% Strain	MD	ASTM 6637	526	7.7
	XMD		797	11.6
2% Secant Moduli	MD	ASTM 6637	26,300	383.6
	XMD		39,850	581.2
Load (Tensile Strength) at 5% Strain	MD	ASTM 6637	1,042	15.2
	XMD		1,367	19.9
5% Secant Moduli	MD	ASTM 6637	20,840	304
	XMD		27,340	398.8
Aperture Stability – kg-cm/deg at 5.0 kg-cm		US COE	5.6	
Minimum Radial Stiffness at 0.5% Strain		ASTM 6637	178,000	2,598
Maximum Radial Stiffness at 0.5% Strain		ASTM 6637	235,000	3,432
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	206,500	3,012
Junction Strength (lb./junction)	MD	GRI-GG2	59.4	0.87
	XMD		64.8	0.95
FHWA Sum of Junctions – Strength (81 total junctions)	MD	GRI-GG2	4,851	70.8
	XMD		5,249	76.6
FHWA Sum of Junctions – Efficiency		GRI-GG2	203% 100%	
Junction Strength (lb./junction)	MD	GRI-GG2	59.9	0.87
	XMD		64.8	0.95
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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