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 XMD	ASTM 6637	2,388 5,268	34.9 76.8
Initial Modulus	MD XMD	ASTM 6637	178,000 235,000	2,598 3,432
Load (Tensile Strength) at 2% Strain	MD XMD	ASTM 6637	526 797	7.7 11.6
2% Secant Moduli	MD XMD	ASTM 6637	26,300 39,850	383.6 581.2
Load (Tensile Strength) at 5% Strain	MD XMD	ASTM 6637	1,042 1,367	15.2 19.9
5% Secant Moduli	MD XMD	ASTM 6637	20,840 27,340	304 398.8
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 XMD	GRI-GG2	59.4 64.8	0.87 0.95
FHWA Sum of Junctions – Strength (81 total junctions)	MD XMD	GRI-GG2	4,851 5,249	70.8 76.6
FHWA Sum of Junctions – Efficiency	MD XMD	GRI-GG2	203% 100%	
Junction Strength (lb./junction)	MD XMD	GRI-GG2	59.9 64.8	0.87 0.95
Coefficient of Pullout Interaction		ASTM 6706 Sandy Gravel Sand	$\underline{C_i = 1.0}$ $\underline{C_i = 1.0}$	
UV Resistance at 500 hours (Strength retained)		ASTM D 4355	74%	
PerCent Open Area		US COE	>70%	
Aperture Size	MD XMD	Measured	1.0 1.0	25 25
Roll Dimensions 12’ x 150’		Measured	200 square yards per roll	

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

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