

PAVEMENT STRUCTURES
BASE COURSE REINFORCEMENT
SUBGRADE IMPROVEMENT BIAxIAL GEOGRID

GEO SF 11 is composed of high molecular weight, high tenacity multifilament polyester yarns that are woven into a stable network placed under tension. The high strength polyester yarns are coated with a polymer coating. GEO SF Geogrids are inert to biological degradation and are resistant to naturally encountered chemicals, alkalis and acids.

GEO SF11 INCREASES THE SERVICE LIFE OF PAVEMENT STRUCTURES BY IMPROVING:

CONFINEMENT OF BASE COURSE

1. Prevents lateral spreading of the base or sub-base aggregate
2. Allows for shear interaction to develop between the aggregate and the geogrid

INCREASE TENSILE STRENGTH OF AGGREGATE

1. **GEO SF 11** geogrid will reduce applied vertical pressure of heavy loads at depth of aggregate by spreading the load over a wider area.

REINFORCEMENT PROPERTIES		TEST METHOD	MARV VALUES	
			lbs/ft	kN/m
Ultimate Strength	MD	ASTM-6637	2388	34.9
	XMD		3870	56.5
Initial Modulus	MD	ASTM-6637	178,000	2598
	XMD		172,900	2524
Load at 2% Strain	MD	ASTM-6637	526	7.68
	XMD		578	8.43
Load at 5% Strain	MD	ASTM-6637	1042	15.2
	XMD		792	11.5
<i>True in place strength after site damage testing based on TRI method of “installation” damage testing with coarse gravel (CG) and sandy gravel (SG).</i>				
Load at 2% Strain	MD (GP)	ASTM 6637 + ASTM-5818 TRI/Method	401	5.8
	MD (SW)		490	6.5
Load at 2% Strain	XMD (GP)	ASTM 6637 + ASTM-5818 TRI/Method	521	7.6
	XMD (SW)		570	8.3
Load at 5% Strain	MD (GP)	ASTM 6637 + ASTM-5818 TRI/Method	795	11.6
	MD (SW)		972	14.1
Load at 5 % Strain	XMD (GP)	ASTM 6637 + ASTM-5818 TRI/Method	715	10.4
	XMD (SW)		781	11.4
Coefficient of Pullout Interaction		ASTM-6706 Sandy Gravel Sand	$C_i = 1.0$ $C_i = 1.0$	
Aperture Size*		Measured	MD 1.0 in. XD 1.3 in.	

* Capability to make aperture to specific sizes.

GP= Coarse Gravel SW= Well Groomed Gravel

Standard roll size is 12' x 150'

PAVEMENT STRUCTURES

BASE COURSE REINFORCEMENT SUBGRADE IMPROVEMENT BIAXIAL GEOGRID

GEO SF 12 is composed of high molecular weight, high tenacity multifilament polyester yarns that are woven into a stable network placed under tension. The high strength polyester yarns are coated with a polymer coating. GEO SF Geogrids are inert to biological degradation and are resistant to naturally encountered chemicals, alkalis and acids.

GEO SF12 INCREASES THE SERVICE LIFE OF PAVEMENT STRUCTURES BY IMPROVING:

CONFINEMENT OF BASE COURSE

1. Prevents lateral spreading of the base or sub-base aggregate
2. Allows for shear interaction to develop between the aggregate and the geogrid

INCREASE TENSILE STRENGTH OF AGGREGATE

1. **GEO SF 12** geogrid will reduce applied vertical pressure of heavy loads at depth of aggregate by spreading the load over a wider area.

REINFORCEMENT PROPERTIES		TEST METHOD	MARV VALUES	
			lbs/ft	kN/m
Ultimate Strength	MD	ASTM-6637	2388	34.9
	XMD		5268	76.8
Initial Modulus	MD	ASTM-6637	178,000	2598
	XMD		235,000	3432
Load at 2% Strain	MD	ASTM-6637	526	7.7
	XMD		797	11.6
Load at 5% Strain	MD	ASTM-6637	1042	15.2
	XMD		1129	16.5
<i>True in place strength after site damage testing based on TRI method of "installation" damage testing with coarse gravel (CG) and sandy gravel (SG).</i>				
Load at 2% Strain	MD (GP)	ASTM 6637 + ASTM 5818	438	6.3
	MD (SW)	TRI/Method	496	7.2
Load at 2% Strain	XMD (GP)	ASTM 6637 + ASTM-5818	664	9.7
	XMD (SW)	TRI/Method	752	11.0
Load at 5% Strain	MD (GP)	ASTM 6637 + ASTM-5818	868	12.6
	MD (SW)	TRI/Method	983	14.3
Load at 5 % Strain	XMD (GP)	ASTM 6637 + ASTM-5818	940	13.7
	XMD (SW)	TRI/Method	1065	15.5
Coefficient of Pullout Interaction		ASTM 6706 Sandy Gravel Sand	Ci= 1.0 Ci= 1.0	
Aperture Size*		Measured	MD 1.0 in. XD 1.3 in.	

* Capability to make apertures to specific sizes
Standard roll size: 12' x 150'. Production of Master Roll lengths as well.

GP= Poorly Graded Gravel
SW= Well Groomed Gravel

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