



# GEOGRIDS

## REINFORCEMENT AND STABILIZATION OF ATHLETIC FIELDS

ESS offers a wide selection of geosynthetic geogrids that are engineered to improve the performance of weak subgrades in athletic fields. While reinforcing and increasing the stiffness at the base of the synthetic or natural sport field, the geogrid openings interact with base materials, confining them and preventing lateral dispersion and improving structural performance of the subgrade. We have the products and expertise to protect your base layer and drainage systems, both natural or synthetic for settlement failure. Whether a full field installation like the Baltimore Ravens Stadium or countless perimeter trench reinforcement applications, ESS has the geogrid to meet your needs.



Perimeter trench placed under the Sport Drain Max, Schertz Cibolo ISD, TX.

Compacting rounded, clean drainage stone in the perimeter drainage ditch is a challenge to most contractors on synthetic fields. The potential for the stone to displace under load causes the lines to move, especially during the infill process. By placing a layer of geogrid on top of the perimeter trench just below the turf or synthetic aggregate system helps to reduce this potential problem. The open area of the geogrid allows for the stone to interlock and resist lateral displacement through confinement. The stiff, rigid geogrid, through this lateral constraint mechanism, provides a nice, stable platform for the overlying layers without reducing the drainage characteristics of the aggregate.

### Product Advantages:

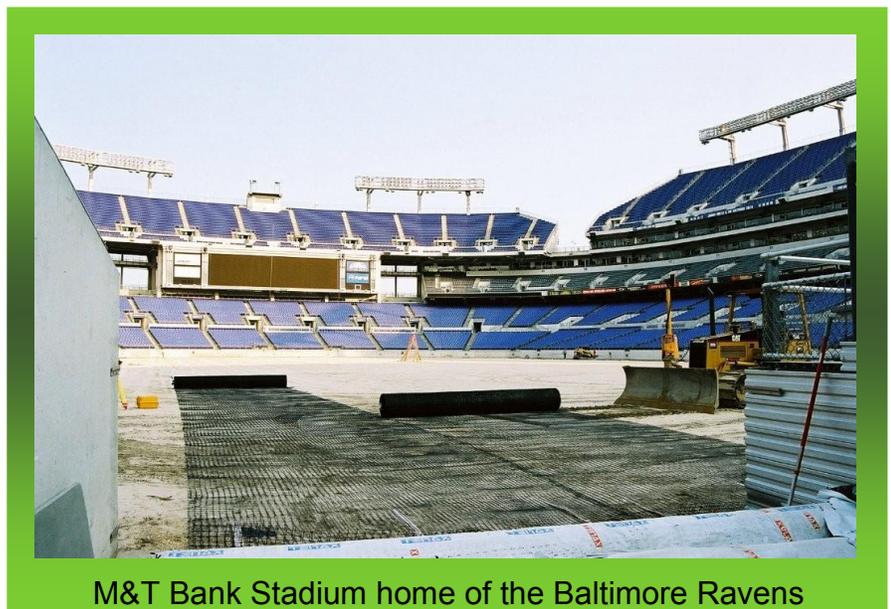
- ❑ Soil stabilization and Base Reinforcement
- ❑ Increased separation between the subgrade and fill material
- ❑ Prevent lateral dispersion of base materials
- ❑ Improves structural performance

For more information, please contact us

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M&T Bank Stadium home of the Baltimore Ravens

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MS™ 220 B is composed of two layers of high strength extruded biaxial oriented polypropylene geogrids. The random aperture geometry is designed to accommodate a variety of fill materials. The many tensile elements and multiple layers of the geogrid enhance the soil/geogrid interaction. MS™ 220 B geogrid greatly improves the geogrid interlocking capacity, distributes applied loads, and prevents localized shear failure.

## MS 220 B Data Sheet

GEOSYNTHETIC PROPERTY	TEST METHOD	UNIT	MS™ 220B	
			MD	TD
<b>Material Characteristics</b>				
Polymer Type	-	-	Polypropylene	
PH Resistance	-	-	2 – 13	
Carbon Black Content	ASTM 4218	%	0.5	
<b>Strength and Load Capacity</b>				
Peak Tensile Strength	ASTM D6637	lb/ft	925	
Tensile Strength @ 2% Strain	ASTM D6637	lb/ft	301	1,400
Tensile Strength @ 5% Strain	ASTM D6637	lb/ft	616	450
Initial Modulus	ASTM D6637	lb/ft	17,140	920
Tensile Modulus @ 2% Strain	ASTM D6637	lb/ft	15,050	27,420
Tensile Modulus @ 5% Strain	ASTM D6637	lb/ft	12,320	22,500
<b>Structural Integrity</b>				
Flexural Rigidity	ASTM D 1388	mg-cm	250,000	
Junction Strength	GRI-GG2	lb/ft	860	250,000
<b>Performance Characteristics</b>				
Maximum Pullout Resistance (Coefficient of Interaction)				1315
@ 205 psf		lb/ft	-	
@ 410 psf		lb/ft	-	650 (1.05)
Maximum Rut Depth (TEAL = 40,000 cycle)	-	in.	0.827	1,295 (1.03)
<b>Durability</b>				
Resistance to Installation Damage	ASTM D 5818	%	>90/>90/90	

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