EARTH SAVER
GEOSYNTHETICS & EROSION CONTROL PRODUCTS

ES-1S

ES-1S - a Single Net Straw Blanket, is a temporary Erosion Control Blanket composed of a 100% weed free agricultural straw matrix mechanically stitch bonded with a photodegradable polypropylene (white) thread to a single polypropylene photodegradable net which is located at the top of the blanket. ES-1S is recommended for applications requiring erosion protection for a period of up to 12 months. The material is fully degradable. The net and thread are photodegradable, and the fiber matrix is biodegradable. Actual field longevity is dependent on soil and climatic conditions. ES-1S is listed on AASHTO DataMine under ECP/SRD. ES-1S is made in the US.

Index Property	Test Method	Value	
Mass Per Unit Area	ASTM D6475	6.5 oz/sy	220 g/m^2
Thickness	ASTM D6525	275 mils	7 mm
Tensile Strength MD	ASTM D6818	116 lbs/ft	1.7 kN/m
Tensile Strength TD	ASTM D6818	68 lbs/ft	1.0 kN/m
Bench Scale Tests			
Soil Loss Ratio[1]	ASTM D7101	4.13	
Permanent Shear Stress[1]	ASTM D7207	2.06 psf	
Light Penetration[1]	ASTM D6567	25%	
Biomass Improvement[1]	ASTM D7322	PASS>100%	
Design Parameters			
Unvegetated RUSLE C-Factor[1,2]	ASTM D6459	0.053	
Maximum Slope Gradiant		3H:1V	
Unvegetated permissable shear strength[1,2]	ASTM D6460	1.81 psf	
Unvegetated permissable velocity[1,2]	ASTM D6460	8.7 ft/sec	
Manning's Roughness "n" (HEC-15)			
τ_{lower}	τ_{mid}	τ_{upper}	
0.04	0.03	0.03	

Physical Description				
Netting- top net	0.52" x 0.5" photo stabilized PP (green)			
Thread	300 denier photodegradable PP (white)			
Matrix	100% agricultural cured wheat straw, 0.5 lbs/sy			
Packaging Details				
Roll Width	8 ft	2.4 m	16 ft	4.9 m
Roll Length	112.5 ft	34.3 m	562.5 ft	171.5 m
Roll Area	100 yd^2	83.6 m^2	1000 yd^2	840 m^2
Roll Weight	50 lbs	23 kg	500 lbs	230 kg
Packaging specifics	All rolls are wrapped tightly with stretch wrap to protect the erosion control product from weather and elements			
Classification				
FHWA	Type 2.C			
ECTC	Type 2.C			
AASHTO	Type 2A1			
Functional Longevity	3-12 months			

IECA International Erosion Control Association
Protecting Soil and Water Resources

EROSION CONTROL TECHNOLOGY COUNCIL
ECTC - EST 1992

PRODUCT EVALUATION & AUDIT DATAMINE TESTED

1- Values developed by TRI/Environmental Inc. using Bench Scale and Large Scale testing for AASHTO's National Transportation Product Evaluation Program

2-Generalized for typical applications, based on hydraulic performance with ASTM D6459 and D6460 tests.

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