MATERIAL PROPERTY DATA SHEET

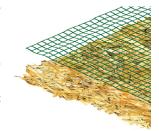


EXCEL SR-1™

Short Term • Single Net • Straw Matrix • Erosion Control Blanket

DESCRIPTION

Excel SR-1 temporary Erosion Control Blanket is composed of a 100% weed free agricultural straw matrix mechanically (stitch) bonded on two-inch centers to a single synthetic, photodegradable net. The net is secured to the top of the RECP to restrain the straw matrix once installed. Excel SR-1 blanket is intended for use in applications requiring erosion protection for a period up to twelve 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.



Each roll of Excel SR-1 is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

SR-1 has replaced ECS-1, formerly provided by East Coast Erosion. SR-1 meets or exceeds the ECS-1 and can be used as a replacement with no limitations

	Material Content	
Matrix	Straw	
Netting	Lightweight, Synthetic, Regular Degradable	Top Net (Green)
Thread	Synthetic, Regular Degradable	
	Standard Roll Sizes	

	Sta	ndard Roll Size	es	
Width	8 ft	(2.4 m)	16 ft	(4.9 m)
Length	112.5 ft	(34.1 m)	563 ft	(171.0 m)
Weight ± 10%	50 lb	(22.7 kg)	500 lb	(227.0 kg)
Area	100 sy	(83.6 m ²)	1000 SY	(836.0 m ²)
Material available in custom roll sizes				

	Approvals & Classification
Classification	FHWA: Type 2.C / ECTC: Type 2.C
TTI Approvals	Class 1 Type A, B
NTPEP Number	ECP-2019-03-010

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Index Property	Test Method	Ту	pical
Thickness	ASTM D6525	0.28 in.	(7 mm)
Mass/Unit Area	ASTM D6566	8.0 oz/sy	(275 g/sm)
Tensile Strength – MD	ASTM D6818	110 lbs/ft	(1.6 kN/m)
Tensile Strength – TD	ASTM D6818	60 lbs/ft	(0.9 kN/m)
Elongation - MD	ASTM D6818	;	30%
Elongation – TD	ASTM D6818	3	30%
Density/Specific Gravity	D792		N/A
Light Penetration	ASTM D6567	:	15%
Biomass Improvement	ASTM D7322	3	75%
Water Absorption	ASTM D1117	4	.00%

Design Parameters				
Property	Unvegetated	Vegetated ³		
RUSLE C Factor ²	0.02	N/A		
Slope Maximum Gradient ¹	3H:1V	N/A		
Permissible Shear Stress ²	1.6 psf (75 Pa)	N/A		
Permissible Velocity ²	5.0 fps (1.5 m/s)	N/A		
Manning's n Roughness (HEC-15)				
$ au_{lower}$	$ au_{mid}$	τ_{upper}		
0.040	0.030	0.030		

- 1 Maximum Gradient a recomendation for typical insllations.
- 2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications.
- 3 Vegetated values dependent on established stand of vegetation



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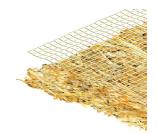


EXCEL SR-1 All Natural™

Short Term • Single Net • Straw Matrix • Biodegradable • Erosion Control Blanket

DESCRIPTION

Excel SR-1 All Natural (SR-1AN) temporary Erosion Control Blanket is composed of a 100% weed free agricultural straw matrix mechanically (stitch) bonded on two-inch centers to a single biodegradable, jute/scrim net. Thread utilized in the construction of the blanket is biodegradable cotton. Excel SR-1AN blanket is recommended applications requiring erosion protection for a period up to twelve months. The material is fully degradable. The net, thread, and the fiber matrix is biodegradable. Actual field longevity is dependent on soil and climatic conditions.



Each roll of Excel SR-1AN is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

SR-1AN has replaced ECS-1B, formerly provided by East Coast Erosion. SR-1AN meets or exceeds the ECS-1B and can be used as a replacement with no limitations.

Material Content				
Matrix	Straw			
Netting	Jute Scrim, B	iodegradable,	Leno Weave	Single Net
Thread	Thread Biodegradable Cotton or Rayon			
Standard Roll Sizes				
Width	8 ft	(2.4 m)	16 ft	(4.9 m)
Length	112 ft	(34.1 m)	563 ft	(171.0 m)
Weight ± 10%	50 lb	(22.7 kg)	500 lb	(227.0 kg)
Area	100 sy	(83.6 m ²)	1000 SY	(836.0 m ²)

	Approvals & Classification
Classification	FHWA: Type 2.C / ECTC: Type 2.C
TTI Approvals	Class 1 Type A, C
NTPEP Number	ECP-2019-03-011

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Material available in custom roll sizes

Index Property	Test Method	Ту	pical
Thickness	ASTM D6525	0.28 in.	(7 mm)
Mass/Unit Area	ASTM D6566	8.0 oz/sy	(275 g/sm)
Tensile Strength – MD	ASTM D6818	125 lbs/ft	(1.8 kN/m)
Tensile Strength – TD	ASTM D6818	90 lbs/ft	(1.3 kN/m)
Elongation - MD	ASTM D6818	1	.5%
Elongation – TD	ASTM D6818	15%	
Density/Specific Gravity	D792	1	N/A
Light Penetration	ASTM D6567	1	.5%
Biomass Improvement	ASTM D7322	3	75%
Water Absorption	ASTM D1117	4	00%

Design Parameters			
Property	Unvegetated	Vegetated ³	
RUSLE C Factor ²	0.02	N/A	
Slope Maximum Gradient ¹	3H:1V	N/A	
Permissible Shear Stress ²	1.6 psf (75 Pa)	N/A	
Permissible Velocity ²	5.0 fps (1.5 m/s)	N/A	
Manning's n Roughness (HEC-15)			

Ividining 5 if Noughiness (NEC-15)			
τ_{lower}	$ au_{mid}$	τ_{upper}	
0.040	0.030	0.030	

- 1 Maximum Gradient a recomendation for typical insllations
- 2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications
- 3 Vegetated values dependent on established stand of vegetation

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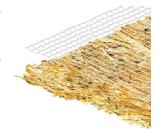


EXCEL SR-1 Rapid Go™

Ultra-Short Term • Single Net • Straw Matrix • Erosion Control Blanket

DESCRIPTION

Excel SR-1 Rapid Go (SR-1RG) temporary Erosion Control Blanket (ECB) is composed of 100% weed free agricultural straw matrix mechanically (stitch) bonded on two-inch centers to a single photodegradable, synthetic net. The netting of Excel SR-1RG ECB is treated to accelerate the degradation process. Recommended for applications requiring erosion protection for a period forty-five to ninety days. 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.



Each roll of Excel SR-1RG is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

SR-1RG has replaced ECS-1D, formerly provided by East Coast Erosion. SR-1RG meets or exceeds the ECS-1D and can be used as a replacement with no limitations.

	Material Content	
Matrix	Straw	
Netting	Lightweight, Synthetic, Rapid Degradable	Top Net (White/Clear)
Thread	Synthetic, Rapid Degradable	
	Standard Ball Sizes	

Standard Roll Sizes						
Width	8 ft	(2.4 m)	16 ft	(4.9 m)		
Length	112 ft	(34.1 m)	563 ft	(171.0 m)		
Weight ± 10%	50 lb	(22.7 kg)	500 lb	(227.0 kg)		
Area	100 sy	(83.6 m ²)	1000 SY	(836.0 m ²)		
Material available in custom roll sizes						

Approvals & Classification				
Classification	FHWA: Type 1.C / ECTC: Type 1.C			
TTI Approvals	N/A			
NTPEP Number	N/A			

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Index Property	Test Method	Туј	pical	
Thickness	ASTM D6525	0.28 in.	(7 mm)	
Mass/Unit Area	ASTM D6566	8.0 oz/sy	(275 g/sm)	
Tensile Strength – MD	ASTM D6818	110 lbs/ft	(1.6 kN/m)	
Tensile Strength – TD	ASTM D6818	60 lbs/ft	(0.9 kN/m)	
Elongation – MD	ASTM D6818	3	0%	
Elongation – TD	ASTM D6818	3	0%	
Density/Specific Gravity	D792	1	N/A	
Light Penetration	ASTM D6567	1	.5%	
Biomass Improvement ASTM D7322		3	375%	
Water Absorption	ASTM D1117	40	00%	

Design Parameters					
Property	Unvegetated	Vegetated ³			
RUSLE C Factor ²	0.02	N/A			
Slope Maximum Gradient ¹	3H:1V	N/A			
Permissible Shear Stress ²	1.6 psf (75 Pa)	N/A			
Permissible Velocity ²	5.0 fps (1.5 m/s)	N/A			
Manning's n Roughness (HEC-15)					
τ _{lower}	τ _{mid}	T _{upper}			

- 1 Maximum Gradient a recomendation for typical insllations.
- 2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications.

0.030

3 Vegetated values dependent on established stand of vegetation

Rev. 4.2023

0.040

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0.030