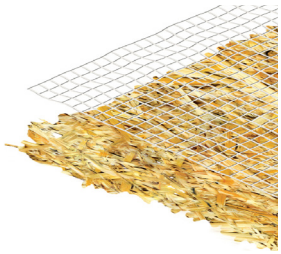
MATERIAL PROPERTY DATA SHEET

EXCEL R-1™

Extended Term • Single Net • Excelsior Wood Matrix • Erosion Control Blanket

DESCRIPTION

Excel R-1 temporary Erosion Control Blanket is composed of a 100% weed free excelsior wood fiber 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 excelsior matrix once installed. Excel R-1 blanket is intended for use in applications requiring erosion protection for a period up to fifteen 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 R-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.

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

Material Content	
Matrix	Excelsior Wood Fiber
Netting	Top: Lightweight, Synthetic, Regular Degradable
Thread	Synthetic, Regular Degradable

Standard Roll Sizes				
Width	8 ft	(2.4 m)	16 ft	(4.9 m)
Length	112 ft	(34.1 m)	450 ft	(137.0 m)
Weight ± 10%	59.4 lb	(26.9 kg)	470 lb	(215.5 kg)
Area	100 sy	(83.6 m^2)	800 SY	(669.0 m^2)

Material available in custom roll sizes

Approvals & Classification		
Classification	FHWA: 2.C / ECTC: 2.C	
TTI Approvals	Class 1 Type A,B,C,D	Class 2 Type E,F
NTPEP Number	ECP-2016-003-009	

Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.40 in.	(10 mm)
Mass/Unit Area	ASTM D6566	10.0 oz/sy	(350 g/sm)
Tensile Strength – MD	ASTM D6818	75 lbs/ft	(1.1 kN/m)
Tensile Strength – TD	ASTM D6818	50 lbs/ft	(0.7 kN/m)
Elongation - MD	ASTM D6818	25%	
Elongation – TD	ASTM D6818	25%	
Density/Specific Gravity	D792	N/A	
Light Penetration	ASTM D6567	35%	
Biomass Improvement	ASTM D7322	425%	
Water Absorption	ASTM D1117	250%	

Design Parameters		
Property	**Unvegetated**	**Vegetated[3]**
RUSLE C Factor	0.05	N/A
Slope Maximum Gradient[1]	2H:1V	N/A
Permissible Shear Stress[2]	1.6 psf (75 Pa)	N/A
Permissible Velocity[2]	5.5 fps (1.7 m/s)	N/A

Manning's n Roughness (HEC-15)		
τ_{lower}	τ_{mid}	τ_{upper}
0.023	0.023	0.023

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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Scan for additional and updated product information, or click here.

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