## **MATERIAL PROPERTY DATA SHEET**

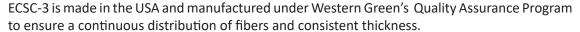


## ECSC-3™

Permanent • Triple Net • Organic Fiber Matrix • Turf Reinforcement Mat

## **DESCRIPTION**

ECSC-3 consists of a machine produced, 70% straw and 30% coconut fiber matrix and three UV-stabilized, synthetic nets securely sewn together with UV-stabilized thread. The tightly compressed blankets are wrapped and palletized for easy transportation. ECSC-3 is intended for slope or channel erosion control applications needing permanent functionality.





Material Content			
Matrix	Straw / Coconut		
Netting	Top Net: Heavyweight, UV Stable Middle Net: Ultra-Heavyweight, UV stable Bottom Net: Heavyweight, UV stable		
Thread	Synthetic, UV Stable		

Standard Roll Sizes				
Width	8 ft	(2.4 m)	16 ft	(4.9 m)
Length	112 ft	(34.1 m)	112 ft	(34.1 m)
Weight ± 10%	92 lb	(41.7 kg)	184.0 lb	(83.5 kg)
Area	100 SY	(83.6 m <sup>2</sup> )	200 SY	(167.2 m <sup>2</sup> )
Material available in custom roll sizes				

	Approvals & Classification
Classification	FHWA: Type 5.C / ECTC: Type 5.C
TTI Approvals	Class II, Type H
NTPEP Number	ECP-2022-02-014

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<b>Index Property</b>	Test Method	Ту	pical
Thickness	ASTM D6525	0.34 in.	(9 mm)
Mass/Unit Area	ASTM D6566	14.0 oz/sy	(475 g/sm)
Tensile Strength – MD	ASTM D6818	700 lbs/ft	(10.2 kN/m)
Tensile Strength – TD	ASTM D6818	625 lbs/ft	(9.1 kN/m)
Elongation - MD	ASTM D6818	:	20%
Elongation – TD	ASTM D6818	:	20%
UV Stability	ASTM D4355	80% (	🤋 1000 hr
Light Penetration	ASTM D6567	7%	
Biomass Improvement	ASTM D7322	4	00%
Specific Gravity	ASTM D792	57.4 lb/ft <sup>3</sup>	(0.92 g/cm <sup>3</sup> )
Porosity	ECTC		N/A

Design Parameters			
Property	Unvegetated	Vegetated <sup>3</sup>	
RUSLE C Factor <sup>2</sup>	0.05	N/A	
Slope Maximum Gradient <sup>1</sup>	0.5H:1V	0.5H:1V	
Permissible Shear Stress <sup>2</sup>	2.3 psf (110 Pa)	10.0 psf (480 Pa)	
Permissible Velocity <sup>2</sup>	11.0 fps (3.4 m/s)	15.0 fps (4.6 m/s)	
$\tau_{\text{veg}}/\tau_{\text{TRM}}$ (HEC-15)	N/A	0.67	

Manning's n Roughness (HEC-15)			
$ au_{lower}$	$ au_{mid}$	$ au_{ ext{upper}}$	
0.021	0.024	0.025	

- 1 Maximum Gradient a recommendation for typical installations.
- 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.



