Carthage Mills **Product Data**

Geotextiles | Erosion Control | Geogrids | Geomembranes

ECSC-3 Triple Net Polypropylene 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.

ECSC-3 is made in the USA.

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^2)	200 SY	(167.2 m^2)

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

Index Property	Test Method	Typical	
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	400%	
Specific Gravity	ASTM D792	57.4 lb/ft^3	(0.92 g/cm^3)
Porosity	ECTC	N/A	

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

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

Effective 12/2025

Carthage Mills assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. Carthage Mills disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Carthage Mills
4243 Hunt Road
Cincinnati, OH 45242
www.carthagemills.com

513-794-1600 TELEPHONE
800-543-4430 TOLL FREE
513-794-3434 FACSIMILE
info@carthagemills.com

Since 1958: America's *First* Geotextile Company