Geotextiles | Erosion Control | Geogrids | Geomembranes



ECC-3 Triple Net Polypropylene Turf Reinforcement Mat

DESCRIPTION

ECC-3 consists of a machine produced, 100% 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. ECC-3 is intended for slope or channel erosion control applications needing permanent functionality.

ECC-3 is made in the USA.



Material Content			
Matrix	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: 5.D
TTI Approvals	Class II, Type H
NTPEP Number	ECP-2021-02-001

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Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.31 in.	(8 mm)
Mass/Unit Area	ASTM D6566	13.0 oz/sy	(450 g/sm)
Tensile Strength – MD	ASTM D6818	800 lbs/ft	(11.7 kN/m)
Tensile Strength – TD	ASTM D6818	625 lbs/ft	(9.1 kN/m)
Elongation - MD	ASTM D6818	2	20%
Elongation – TD	ASTM D6818	:	20%
UV Stability	ASTM D4355	80% @	0 1000 hr
Light Penetration	ASTM D6567	:	10%
Biomass Improvement	ASTM D7322	3	00%
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	0.05	N/A	
Slope Maximum Gradient ¹	0.5H:1V	0.5H:1V	
Permissible Shear Stress ²	3.2 psf (155 Pa)	12.0 psf (575 Pa)	
Permissible Velocity ²	11.5 fps (3.5 m/s)	18.0 fps (5.5 m/s)	
$\tau_{_{\text{veg}}}/\tau_{_{\text{TRM}}}$ (HEC-15)	N/A	0.67	

Manning's n Roughness (HEC-15)			
τ_{lower}	$ au_{mid}$	$ au_{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 12/01/23

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