Carthage Mills **Product Data**

Geotextiles | Erosion Control | Geogrids | Geomembranes

ECP-3 Polypropylene Turf Reinforcement Mat

The ECP-3 is made with uniformly distributed 100% green polypropylene fiber and three heavyweight polypropylene nets securely sewn together with UV stabilized thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECP-3 is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels. The ECP-3 meets Type 5.A, 5.B, and 5.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18.

Materials:	**Netting – Top / Middle / Bottom**	**Matrix**	**Thread**
	Heavyweight 24# PMSF UV Stabilized Polypropylene, Black .4" x .5" / .4" x .5" / .4" x .5"	Green or Tan Polypropylene Fiber	UV Stabilized Black

Roll Sizes:	**Standard**		**"A" Size**		**Mega**	
Width:	8.0 ft	(2.4 m)	4.0 ft	(1.2 m)	16.0 ft	(4.9 m)
Length:	112.5 ft	(34.3 m)	225.0 ft	(68.6 m)	112.5 ft	(34.3 m)
Weight ±10%:	125.0 lbs	(56.7 kg)	125.0 lbs	(56.7 kg)	250.0 lbs	(113.4 kg)
Area:	100 yd^2	(83.6 m^2)	100 yd^2	(83.6 m^2)	200 yd^2	(167.2 m^2)
#/Pallet:	6		4		6	

Index Value Properties*:

Property	**Test Method**	**Typical**	
Mass/Unit Area	ASTM D6475	19.00	oz/yd^2 (644.2 g/m^2)
Thickness	ASTM D6525	.41	In (10.41 mm)
Tensile Strength-MD	ASTM D6818	1232	lb/ft (17.98 Kn/m)
Elongation-MD	ASTM D6818	29	%
Tensile Strength-TD	ASTM D6818	1192	lb/ft (17.4 Kn/m)
Elongation-TD	ASTM D6818	19.0	%
Light Penetration	ASTM D6567	15	%
Density / Specific Gravity	ASTM D7912	0.913	g/cm^3
Water Absorption	ASTM D1117	0	%
Resiliency	ASTM D6524	93	%
UV Resistance	ASTM D4355	100	% (1000 hr)
* May differ depending upon raw material variations			

Bench-Scale Testing* (NTPEP*):**

Test Method	**Parameters**	**Results**
ECTC Method 2 Rainfall	50mm (2in) / hr-30 min	SLR**=7.68
	100mm (4in) / hr-30 min	SLR**=10.42
	150mm (6in) / hr-30 min	SLR**=14.15
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	3.51 lb/ft^2
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	426% improvement
*Bench scale tests should not be used for design purposes.		
**Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor		
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Slope Performance Design Values*:

Property	**Test Method**	**Value**	
C-Factors	ASTM D6459	0.00	
Slope Length (L)	**≤ 3:1**	**3:1-2:1**	**≥ 2:1**
< 50 ft (15m)	0.000	0.001	0.022
50 ft – 100 ft	0.005	0.009	0.029
> 100 ft (30 m)	0.016	0.025	0.036
*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory			

Channel Performance Design Values*:

Property	**Test Method**	**Value**
Unvegetated Shear Stress	ASTM D 6460	3.80 lbs/ft^2 (181.94 Pa)
Unvegetated Velocity	ASTM D 6460	12.1 ft/s (3.69 m/s)
Vegetated Shear Stress	ASTM D 6460	14.0lbs/ ft^2 (670.32 Pa)
Vegetated Velocity	ASTM D 6460	25.0 ft/s (7.62 m/s)
Manning's N (Value Represents a Range)	Calculated	0.028
*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory		

Effective 01/01/19

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