



Proud Member and Participant of:

www.eastcoasterosion.com

443 Bricker Road Bernville, PA 19506

1.800.582.4005 +1.610.488.8496 Fax +1.610.488.8494



Material and Performance Specification

ECP-2™ Polypropylene Turf Reinforcement Mat

Description:

The ECP-2™ is made with uniformly distributed 100% green polypropylene fiber and two medium weight 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-2™ is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels. The ECP-2™ 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.

| Matrix: | 1 | 2 |
|---------|----------------------------------|---|
| | Green or Tan Polypropylene Fiber | |

| Netting: | Type | Net Color |
|----------|---|-----------|
| Top: | Medium weight 5# PMSF UV Stabilized Polypropylene | Black |
| Middle: | None | |
| Bottom: | Medium weight 5# PMSF UV Stabilized Polypropylene | |

| Net Opening: | Top | Middle | Bottom |
|--------------|-------------|--------|-------------|
| | 0.5" x 0.5" | | 0.5" x 0.5" |

| Thread: | Type | Color |
|---------|----------------------|-------|
| | UV Stabilized Thread | Black |

| Roll Sizes: | Standard | | "A" Size | | Mega | |
|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| Width: | 8 ft | 2.4 m | 4 ft | 1.2 m | 16 ft | 4.9 m |
| Length: | 112.5 ft | 34.3 m | 225 ft | 68.6 m | 112.5 ft | 34.3 m |
| Weight:* | 75 lbs | 34.0 kg | 75 lbs | 34.0 kg | 150 lbs | 68.0 kg |
| Area: | 100 yd ² | 83.6 m ² | 100 yd ² | 83.6 m ² | 200 yd ² | 167.2 m ² |
| #/Pallet: | 9 | | 6 | | 9 | |

*Weight at time of manufacturing within specified tolerances.

Index Value Properties*:

| Property | Test Method | Typical |
|----------------------------|-------------|---|
| Mass/Unit Area | ASTM D6566 | 12.00 oz/yd ² 406.9 g/m ² |
| Thickness | ASTM D6525 | 0.40 in 10.16 mm |
| Tensile Strength-MD | ASTM D6818 | 400 lb/ft 5.84 kN/m |
| Elongation-MD | ASTM D6818 | 31 % |
| Tensile Strength-TD | ASTM D6818 | 400 lb/ft 5.84 kN/m |
| Elongation-TD | ASTM D6818 | 19.0 % |
| Light Penetration | ASTM D6567 | 18 % |
| Density / Specific Gravity | ASTM D792 | 0.915 g/cm ³ |
| Water Absorption | ASTM D1117 | 0 % |
| Resiliency | ASTM D6524 | 80 % |
| UV Resistance | ASTM D4355 | 82 % 1000 hours |

*May differ depending upon raw material variations

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

| Test Method | Parameters | Results |
|--------------------------------|-------------------------------------|-------------------------|
| | 50mm (2in) / hr-30 min | SLR**=5.53 |
| ECTC Method 2 Rainfall | 100mm (4in) / hr-30 min | SLR**=5.38 |
| | 150mm (6in) / hr-30 min | SLR**=5.22 |
| ECTC Method 3 Shear Resistance | Shear at .50 in soil loss | 2.72 lb/ft ² |
| ECTC Method 4 Germination | Top soil; Fescue; 21 day incubation | 469 % |

*Bench scale tests should not be used for design purposes.

**Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor

***The preceding test data excerpts were reproduced with the permission of AASHTO, however, this does not constitute endorsement or approval of the product, material or device by AASHTO

Slope Performance Design Values*:

| Property | Test Method | Value |
|-------------------------|--------------|----------------|
| C-Factors | ASTM D6459 | 0.01 |
| Slope Length (L) | ≤ 3:1 | 3:1-2:1 |
| < 50 ft (15 m) | 0.012 | 0.025 0.092 |
| 50 ft – 100 ft | 0.036 | 0.065 0.115 |
| >100 ft (30 m) | 0.080 | 0.108 0.145 |

*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 | 2.60 lbs/ft ² 124.49 Pa |
| Unvegetated Velocity | ASTM D 6460 | 10.0 ft/s 3.05 m/s |
| Vegetated Shear Stress | ASTM D 6460 | 12.0 lbs/ft ² 574.56 Pa |
| Vegetated Velocity | ASTM D 6460 | 20.0 ft/s 6.10 m/s |
| Manning's N (Value Represents a Range) | | 0.028 |

*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory

The values presented are for guidance purposes and do not constitute the practice of engineering. East Coast Erosion Blankets LLC (ECEB) ascertains that at the time of manufacture, all information presented herein is accurate and reliable and falls within the ECEB manufacturing product specification variances. If the product does not meet the stated values and ECEB is notified in writing prior to installation, the product will be replaced at no cost to the purchaser. ECEB will not be held liable for any type of damage or losses, directly or indirectly, for failure of this product. Current revision supersedes all previous versions for this product.