

MATERIAL PROPERTY DATA SHEET



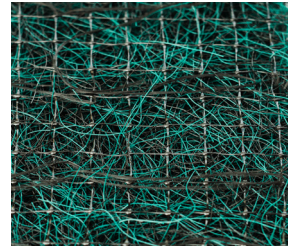
ECP-3™

Permanent • Triple Net • Synthetic Matrix •
Turf Reinforcement Mat

DESCRIPTION

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

ECP-3 is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.



Material Content

| | |
|---------|--|
| Matrix | Synthetic Fiber |
| Netting | Top Net: Ultra-heavyweight, UV stable |
| | Middle Net: Ultra-heavyweight, UV stable |
| | Bottom Net: Ultra-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% | 125 lb | (56.7 kg) | 250.0 lb | (113.4 kg) |
| Area | 100 SY | (83.6 m²) | 200 SY | (167.2 m²) |

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-2018-03-015 |

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Index Property

Test Method

Typical

| | | | |
|-----------------------|------------|--------------|--------------|
| Thickness | ASTM D6525 | 0.38 in. | (10 mm) |
| Mass/Unit Area | ASTM D6566 | 18.5 oz/sy | (625 g/sm) |
| Tensile Strength – MD | ASTM D6818 | 1,000 lbs/ft | (14.6 kN/m) |
| Tensile Strength – TD | ASTM D6818 | 1,000 lbs/ft | (14.6 kN/m) |
| Elongation - MD | ASTM D6818 | 25% | |
| Elongation – TD | ASTM D6818 | 20% | |
| UV Stability | ASTM D4355 | 90% @1000 hr | |
| Light Penetration | ASTM D6567 | 15% | |
| Biomass Improvement | ASTM D7322 | 400% | |
| Specific Gravity | ASTM D792 | 57.4 lb/ft³ | (0.92 g/cm³) |
| Porosity | ECTC | 93% | |

Design Parameters

| Property | Unvegetated | Vegetated ³ |
|---------------------------------------|--------------------|------------------------|
| RUSLE C Factor | 0.03 | N/A |
| Slope Maximum Gradient ¹ | 0.5H:1V | 0.5H:1V |
| Permissible Shear Stress ² | 3.3 psf (160 Pa) | 14.0 psf (670 Pa) |
| Permissible Velocity ² | 12.0 fps (3.7 m/s) | 20.0 fps (6.1 m/s) |
| τ_{veg} / τ_{TRM} (HEC-15) | N/A | 0.65 |

Manning's n Roughness (HEC-15)

| τ_{lower} | τ_{mid} | τ_{upper} |
|----------------|--------------|----------------|
| 0.035 | 0.027 | 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](#).

