

# **P42 TRM**

# **Specification Sheet**

The ErosionControlBlanket P42 is a turf reinforcement mat made of 100% polypropylene fiber (green or tan) designed for critical slope and channel applications requiring permanent erosion control and turf reinforcement. The matting is sewn together on 1.5 inch (38.1 mm) centers. The P42 meets all requirements established in the FHWA FP-03 as a Type 5 A, B, and C turf reinforcement matting for use on slopes with gradients up to 0.5:1 (h:v), channels, and shorelines. The P42 has been tested by the National Transportation Product Evaluation Program (NTPEP). The P42 comes packaged in clear shrink-wrap with a blue band and includes installation instructions.

### **Product Nomenclature & Properties**

- **P** = 100% polypropylene fiber matrix (tan or green in color)
- 4 = polypropylene fiber matrix applied at a rate of 0.75 lbs/yd<sup>2</sup> (400 g/m<sup>2</sup>)
- 2 = top permanent UV stabilized black net with a mesh size of 0.53 x 0.5 in (1.34 x 1.27 cm)
  - = bottom permanent UV stabilized black net with a mesh size of 0.626 x 0.626 in (1.59 x 1.59 cm)
  - = permanent UV stabilized black thread

## Index & Bench Scale Testing

| Test Description  | Test Method | Test Results  |
|---|-------------|---|
| Mass per Unit Area  | ASTM D6475  | 12 oz/yd <sup>2</sup>   |
| UV Stability at 500 hours   | ASTM D 4355 | 96%   |
| Tensile Strength  | ASTM D6818  | 31.4 lb/in @ 27.6% MD<br>17.7 lb/in @ 33.4% TD                                |
| Thickness   | ASTM D6525  | 0.446 in  |
| Light Penetration / Ground Cover  | ASTM D6567  | 20% / 80%   |
| Unvegetated Bench-Scale Rain Splash and Runoff (not to be used as a design value) | ASTM D7101  | Soil Loss Ratio* = 6.29<br>Soil Loss Ratio* = 6.05<br>Soil Loss Ratio* = 5.81 |
| Unvegetated Large-Scale Channel Shear Stress                                      | ASTM D6460  | 3.15 lbs/ft <sup>2</sup>  |
| Seed Germination and Plant Growth Under Bench-Scale Conditions                    | ASTM D7322  | 508% Improvement (increased biomass)  |

#### Design Values

- "C" factor = 0.12
- Unvegetated Maximum Permissible Shear Stress = 3.15 lbs/ft<sup>2</sup> (150.8 Pa)
- Vegetated Maximum Permissible Shear Stress = 14.0 lbs/ft² (670.3 Pa)
- Maximum Flow Velocity Unvegetated = 12 ft/s (3.8 m/s)
- Maximum Flow Velocity Vegetated = 21 ft/s (6.65 m/s)
- Unvegetated Manning's "n" = 0.03 (The hydraulic roughness coefficient will vary for vegetated conditions based on vegetation stand height and density)

#### Standard Roll Details

 Width
 2.44m (8ft)
 4.88m (16ft)

 Standard Length
 25.7m (84.3ft)
 25.7m (84.3ft)

 Area
 62.7m² (75yd²)
 125.4m² (150yd²)

 Weight ±10%
 28kg (61lb)
 56kg (122lb)z

## **Highway Roll Details**

 Width
 2.44m (8ft)
 4.88m (16ft)

 Standard Length
 102.8m (337.5ft)
 102.8m (337.5ft)

 Area
 250.8m² (300yd²)
 500m² (600yd²)

 Weight ±10%
 112kg (244 lb)
 224kg (488 lb)



