

# Recyclex<sup>®</sup> TRM, Recyclex TRM – V 10, & Recyclex<sup>®</sup> TRM–V

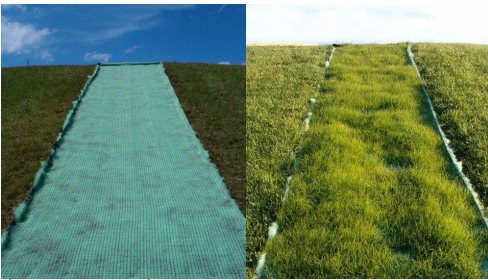
## Long-Term Turf Reinforcement Matting



Recyclex - the first family of long-term turf reinforcement mats (TRM) with fibers made from 100% recycled goods - “green bottles”. That’s right, approximately 18 bottles are diverted from landfills with every pound of Recyclex fibers. American Excelsior Company invented the first biodegradable blanket, and we have done the same with recycled poly fibers to create Recyclex. Not only is Recyclex environmentally responsible, it is designed to meet your most difficult erosion control challenges. For long-term erosion control, Recyclex is the answer.

### Material Characteristics

Recyclex is made from 100% recycled fibers with 80% or more 5 inches in length or greater. The fibers are crimped to allow a strong, curled, interlocking fiber matrix. Sound familiar to Curlex excelsior fibers? Absolutely! Just as Curlex fibers have been the most successful biodegradable matrix since we invented erosion control blankets, we applied the same concept to our Recyclex Turf Reinforcement Matting. Our crimped fibers conform to terrain details and train water flow to follow the Recyclex curled fiber matrix. In turn, water flow velocity is reduced.



Recyclex fibers have a specific gravity of greater than one, meaning the matrix will not float during a hydraulic event. Recyclex fibers are stitched together by two strong layers of UV resistant polypropylene netting to form a three-dimensional matrix that is designed to provide long-term surface support for vegetation and structural root systems. Recyclex can be installed similar to an erosion control blanket by placing it over grass seed and topsoil or it can be soil filled and seeded to allow a structural root system to grow directly into the turf reinforcement matting.

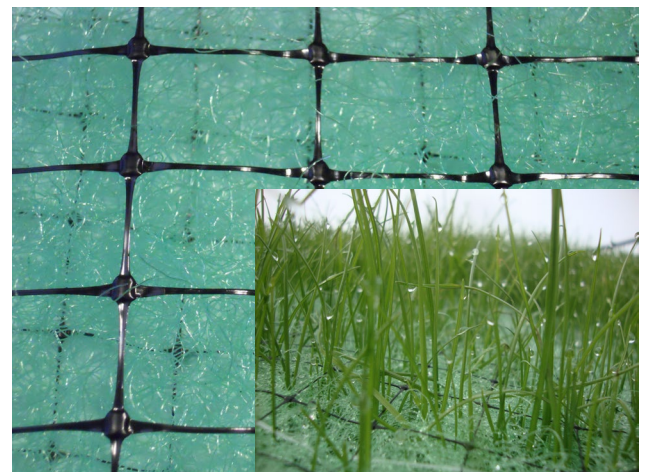
### Performance Capabilities

Products	Recyclex TRM	Recyclex TRM – V 10	Recyclex TRM - V
Channel Shear Stress Ratings	480+ Pa (10.0+ lb/ft <sup>2</sup> )	480+ Pa (10.0+ lb/ft <sup>2</sup> )	384+ Pa (8.0+ lb/ft <sup>2</sup> )
Channel Velocity Ratings	5.2+ m/s (17.0+ ft/s)	5.2+ m/s (17.0+ ft/s)	4.9+ m/s (16.0+ ft/s)
Slope Steepness	Unlimited gradient, but relative to geotechnical review	Unlimited gradient, but relative to geotechnical review	Unlimited gradient, but relative to geotechnical review

### Typical Applications

Recyclex TRMs are designed to allow revegetation and provide long-term protection in areas of concentrated flow:

- Ditch bottoms, channel bottoms, swales & slopes
- Steep, reinforced slope veneers
- Landfill down chutes & let down structures
- Pond, small lake, and stream bank shoreline stabilization
- Urban stormwater drainage channels & waterways
- Concentrated flow areas as a TRM component with Curlex Sediment Log<sup>®</sup>
- Typical Rip Rap or Hard Armor applications



# Suggested Specifications

**General:** Recyclex Turf Reinforcement Matting (TRM) is a unique, patented (US 6,855,650 B1), long-term, rolled erosion control product (RECP) with fibers made from 100% recycled goods - "green bottles".

**Product:** Turf Reinforcement Mat shall be manufactured from recycled fibers with 80% or more 5 inches in length, crimped and curled to allow fiber interlocking, which is critical to a strong matrix. The fibers shall be encased between two layers of heavy duty UV stabilized polypropylene netting and stitched top to bottom to form a three-dimensional matrix. The unique recycled poly fibers have a memory of 95% of its original crimp after load or hydraulic events. The fibers shall have a specific gravity of greater than 1, which means they will not float during a hydraulic application unlike other polypropylene fibers.

Its three-dimensional matrix is specifically designed to provide long-term surface support and/or structural support for vegetation root systems. Therefore, it is a Turf Reinforcement Matting or Turf Reinforcement matrix in blanket form. Typically, it is installed as a soil filled and seeded TRM that allows the germination of vegetation above, and it provides a long-term structural matrix for the root system to grow into. In addition, it may be installed as a "stand alone" rolled erosion control product (RECP) over the top of soil and seed, which allows vegetation to grow up through its matrix.

## Recyclex family TRMs will conform to the following typical physical (Index) properties:

Index Property	Test Method	Recyclex TRM Values	Recyclex TRM – V 10 Values	Recyclex TRM – V Values
Mass per Unit Area	ASTM D 6566	0.63 lb/yd <sup>2</sup> (0.342 kg/m <sup>2</sup> )	0.63 lb/yd <sup>2</sup> (0.342 kg/m <sup>2</sup> )	0.50 lb/yd <sup>2</sup> (0.271 kg/m <sup>2</sup> )
Thickness	ASTM D6525	0.37 in (9.4 mm)	0.25 in (6.35 mm)	0.29 in (7.5 mm)
Light Penetration	ASTM D6567	55%	56%	57%
Resiliency	ASTM D6524, ASTM D1777/ECTC	85%	85%	86%
MD Tensile Strength Max	ASTM D6818	387.6 lb/ft (5.66 kN/m)	300.0 lb/ft (4.38 kN/m)	295.2 lb/ft (4.31 kN/m)
TD Tensile Strength Max	ASTM D6818	340.8 lb/ft (4.97 kN/m)	210.0 lb/ft (3.06 kN/m)	194.4 lb/ft (2.84 kN/m)
MD Elongation	ASTM D6818	21.2%	24.9%	32.2%
TD Elongation	ASTM D6818	20.3%	28.7%	40.8%
Ultraviolet Stability	ASTM D4355 (1,000 hr)	90% (min)	80% (min)	80% (min)
Fiber Memory	WLM-TM RC-17	95%	95%	95%
Specific Gravity	ASTM D792	1.28	1.21	1.21
Porosity	Calculated	97.6%	97.5%	97.5%

### Manning's n

Unvegetated	.035 - .040
Vegetated	Consult SCS Vegetal Curve

### Recyclex TRM Roll Properties

Width	8.0 ft (2.4 m) or 16.0 ft (4.9 m)
Length	90.0 ft (27.4 m)
Area	80.0 yd <sup>2</sup> (66.9 m <sup>2</sup> ) or 160.0 yd <sup>2</sup> (133.8 m <sup>2</sup> )
Weight	50.0 lb (22.7 kg) or 100.0 lb (45.4 kg)
Color	Green

### Recyclex TRM - V 10 Roll Properties

Width	8.0 ft (2.4 m) or 16.0 ft (4.9 m)
Length	112.5 ft (34.3 m)
Area	100.0 yd <sup>2</sup> (83.6 m <sup>2</sup> ) or 200.0 yd <sup>2</sup> (167.2 m <sup>2</sup> )
Weight	62.5 lb (28.3 kg) or 125.0 lb (56.7 kg)
Color	Green

### Recyclex TRM - V Roll Properties

Width	8.0 ft (2.4 m) or 16.0 ft (4.9 m)
Length	112.5 ft (34.3 m)
Area	100.0 yd <sup>2</sup> (83.6 m <sup>2</sup> ) or 200.0 yd <sup>2</sup> (167.2 m <sup>2</sup> )
Weight	50.0 lb (22.7 kg) or 100.0 lb (45.4 kg)
Color	Green

Disclaimer: Recyclex TRM, Recyclex TRM – V 10 & Recyclex TRM – V are systems for erosion control and re-vegetation on slopes and channels. American Excelsior Company (AEC) believes that the information contained herein to be reliable and accurate for use in erosion control and re-vegetation applications. However, since physical conditions vary from job site to job site and even within a given job site, AEC makes no performance guarantees and assumes no obligation or liability for the reliability or accuracy of the information contained herein for the results, safety, or suitability of using Recyclex TRM, Recyclex TRM – V 10, or Recyclex TRM – V, or for damages occurring in connection with the installation of any erosion control product whether or not made by AEC or its affiliates, except as separately and specifically made in writing by AEC. These specifications are subject to change without notice.