

# Recyclex<sup>®</sup> TRM And Recyclex<sup>®</sup> TRM-V

## Permanent Turf Reinforcement Mattings

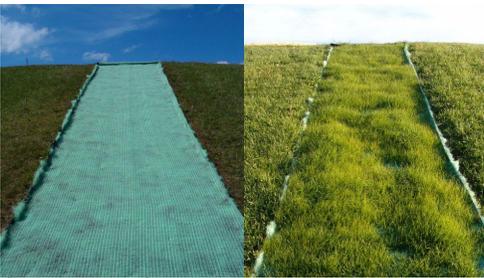


Recyclex - the first family of permanent turf reinforcement mats (TRM) with fibers made from 100% recycled post-consumer goods - "green bottles". That's right, approximately 18 bottles are diverted from landfills with every pound of Recyclex fibers. American Excelsior Company invented the first biodegradable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



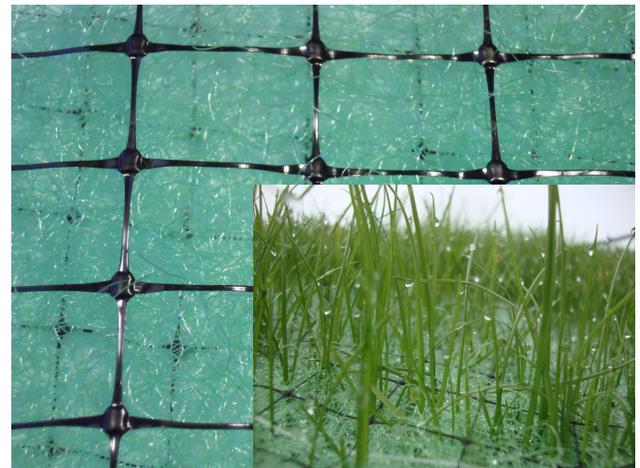
### Performance Capabilities

Products	Recyclex TRM	Recyclex TRM-V
Channels Shear Stress Rating	480+ Pa (10.0+ lb/ft <sup>2</sup> )	384+ Pa (8.0+ lb/ft <sup>2</sup> )
Slopes Steepness	Unlimited gradient, but relative to geotechnical review	Unlimited gradient, but relative to geotechnical review

### Typical Applications

Recyclex TRM's are designed to allow revegetation and provide permanent 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), permanent, rolled erosion control products (RECP) with fibers made from 100% recycled post-consumer 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 UV stabilized polypropylene netting and stitched top to bottom to form a three-dimensional matrix. The unique recycled polyester 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 permanent 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 permanent structural matrix for the root system to grow into. In addition, it may be installed as a "stand alone" rolled erosion control products (RECP) over the top of soil and seed, which allows vegetation to grow up through its permanent matrix.

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

Index Property	Test Method	Recyclex TRM 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> )	0.50 lb/yd <sup>2</sup> (0.271 kg/m <sup>2</sup> )
Thickness	ASTM D 6525	0.37 in (9.4 mm)	0.29 in (7.5 mm)
Light Penetration	ASTM D 6567	55%	57%
Resiliency	ASTM D 6524, ASTM D1777/ECTC	85%	86%
MD Tensile Strength Max	ASTM D 6818	387.6 lb/ft (5.66 kN/m)	295.2 lb/ft (4.31 kN/m)
TD Tensile Strength Max	ASTM D 6818	340.8 lb/ft (4.97 kN/m)	194.4 lb/ft (2.84 kN/m)
MD Elongation	ASTM D 6818	21.2%	32.2%
TD Elongation	ASTM D 6818	20.3%	40.8%
Ultraviolet Stability	ASTM D 4355 (1,000 hr)	90% (min)	80% (min)
Fiber Memory	WLM-TM RC-17	95%	95%
Specific Gravity	ASTM D 792	1.28	1.21
Porosity	Calculated	97.6%	97.5%

## 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

## 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

## Mannings n'

Unvegetated	.035-.040
Vegetated	Consult SCS Vegetal Curve

Disclaimer: Recyclex TRM & 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 information contained herein for the results, safety, or suitability of using Recyclex TRM 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.



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