

I N T R O D U C I N G

The Performance of Reinforced Turf from Day One!

***New InstaTurf™
products provide the
same immediate erosion
protection as traditional
large rock riprap and
other hard armor
systems!***

 **InstaTurf™**
Soft Armor Rock Solid Protection





You no longer need to wait for vegetation in order to attain maximum high-performance erosion protection from a TRM!

Turf Reinforcement Mats (TRMs) have long been used to increase the erosion resistance of vegetation up to that of rock riprap and other hard armor linings. However, older, conventional TRM systems do not provide this high level of erosion protection until vegetation maturity, leaving entire projects at risk, vulnerable to water damage and failure. Our innovative InstaTurf ShearForce products solve this problem once and for all.



Pictured above: on the left is ShearForce10 installed in a streambank; on the right is ShearForce12 installed in a culvert outfall. When fully vegetated, ShearForce products offer easy, low cost maintenance with standard mowing equipment

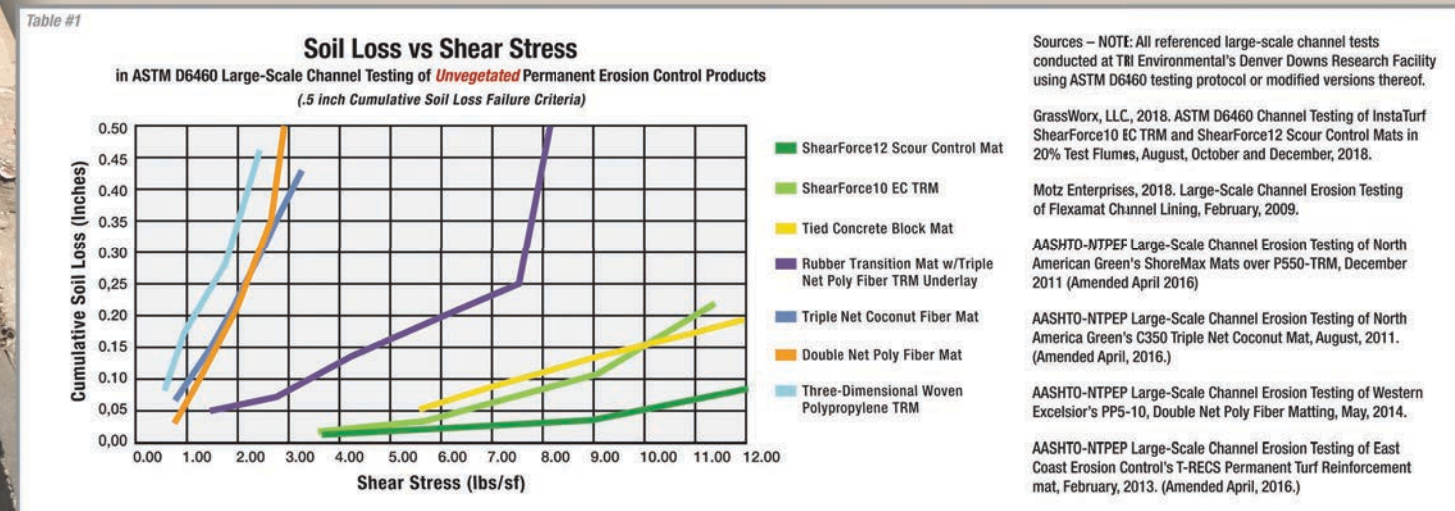
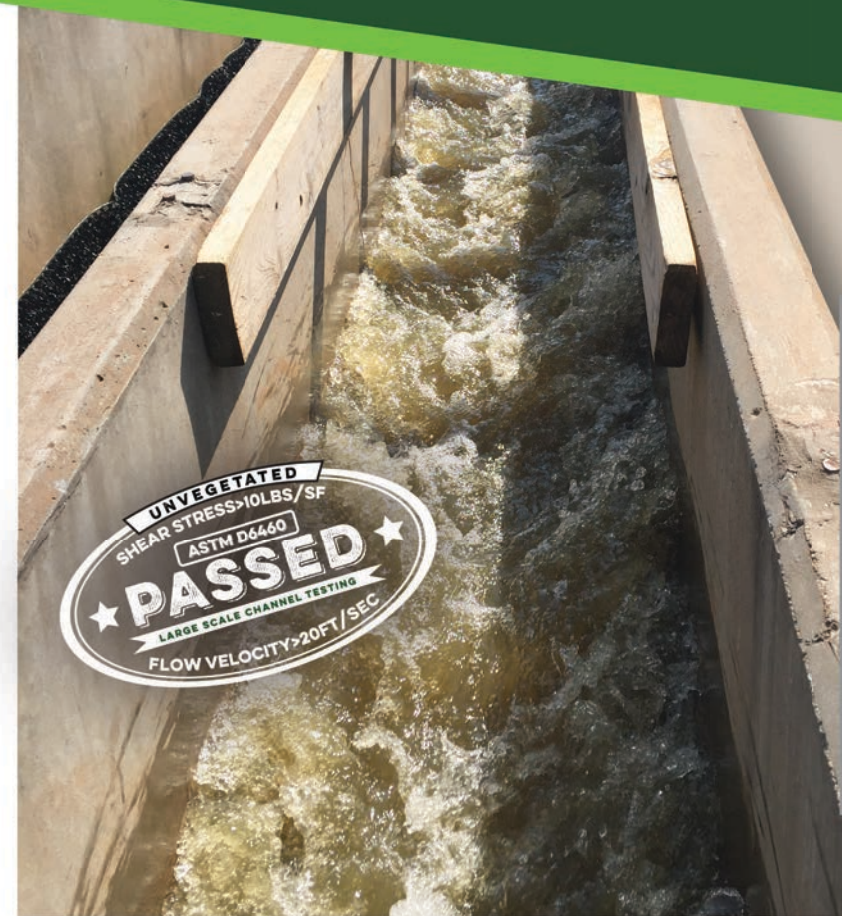
Bring it on!

Patent Pending InstaTurf™ ShearForce10™ and ShearForce12™ high performance erosion control products reduce risk by virtually eliminating erosion under very high-flow conditions from the very first day of installation.

No more worries if that hundred year storm event occurs soon after product installation...your project will be protected! Also, from day one, our products offer the added feature of appearing like real grass.

Proven in ASTM D6460 Large Scale Channel Testing without vegetation to exceed the permissible shear stress of large diameter rock! InstaTurf products are ideal for high flow channels, culvert outfalls, spillways downchutes, shorelines, and other critical areas where vegetation is slow to establish.

For more information and to see a video of the extreme testing process please visit our web site at www.Insta-Turf.com



ShearForce Products: Features and Benefits



- Reinforced turf performance from day one, effective erosion protection at shear stress > 10 lbs/sf
- Immediate erosion control equivalent to large rock riprap and other hard armor, at less than ½ the cost
- Aesthetically pleasing, green grassed-in finished look
- Environmentally friendly
- Highly UV stable and weather resistant
- ShearForce10 is available in convenient 3 ft x 45 ft, 48 lb and 6 ft x 45 ft, 96 lb rolls for easy installation.
- Simple installation, just lay it and anchor it



- Maximum scour protection performance from day one, effective at shear stress > 12 lbs/sf
- All-in-one scour transition mat, no additional underlay required
- Cost-effective scour control alternative to large rock riprap and other hard armor systems
- Aesthetically pleasing, green grassed-in finished look
- Environmentally friendly
- Highly UV stable and weather resistant
- ShearForce12 comes in an all-in-one easy-to-handle 3 ft x 4 ft panel that weighs 30 lbs
- Simple installation, just lay it and anchor it



InstaTurf™ Recommended Design Values		Channels/Outfalls/Spillways/Streambanks*					Slopes	Shorelines
		Manning's n	Design Shear Stress		Design Velocity		Max Gradient (h:v)	Max Wave Height
			Cohesive Soils	Non-Cohesive Soils	Cohesive Soils	Non-Cohesive Soils		
ShearForce10™ EC TRM	Unvegetated	.025 – .040	12 lbs/sf	10 lbs/sf	25 ft/sec	20 ft/sec	>1:1	<=1.0 ft
	Vegetated	.025 – .4	16 lbs/sf	14 lbs/sf	30 ft/sec	25 ft/s±c	>1:1	<=1.5 ft
ShearForce12™ Scour Control Mat	Unvegetated	.025 – .040	14 lbs/sf	12 lbs/sf	30 ft/sec	25 ft/sec	>1:1	<=1.5 ft
	Vegetated	.025 – .4	18 lbs/sf	16 lbs/sf	30 ft/sec	25 ft/s±c	>1:1	<=2.0 ft

* Design values are derived from ASTM D6460 large-scale channel testing on loam soils under 4 consecutive 30 min low events in 20% gradient test flumes. A safety factor (SF) of 1.25 - 2.0 may be applied in channel lining designs to account for longer flow durations, more erodible soils, and varying side-slope gradients.