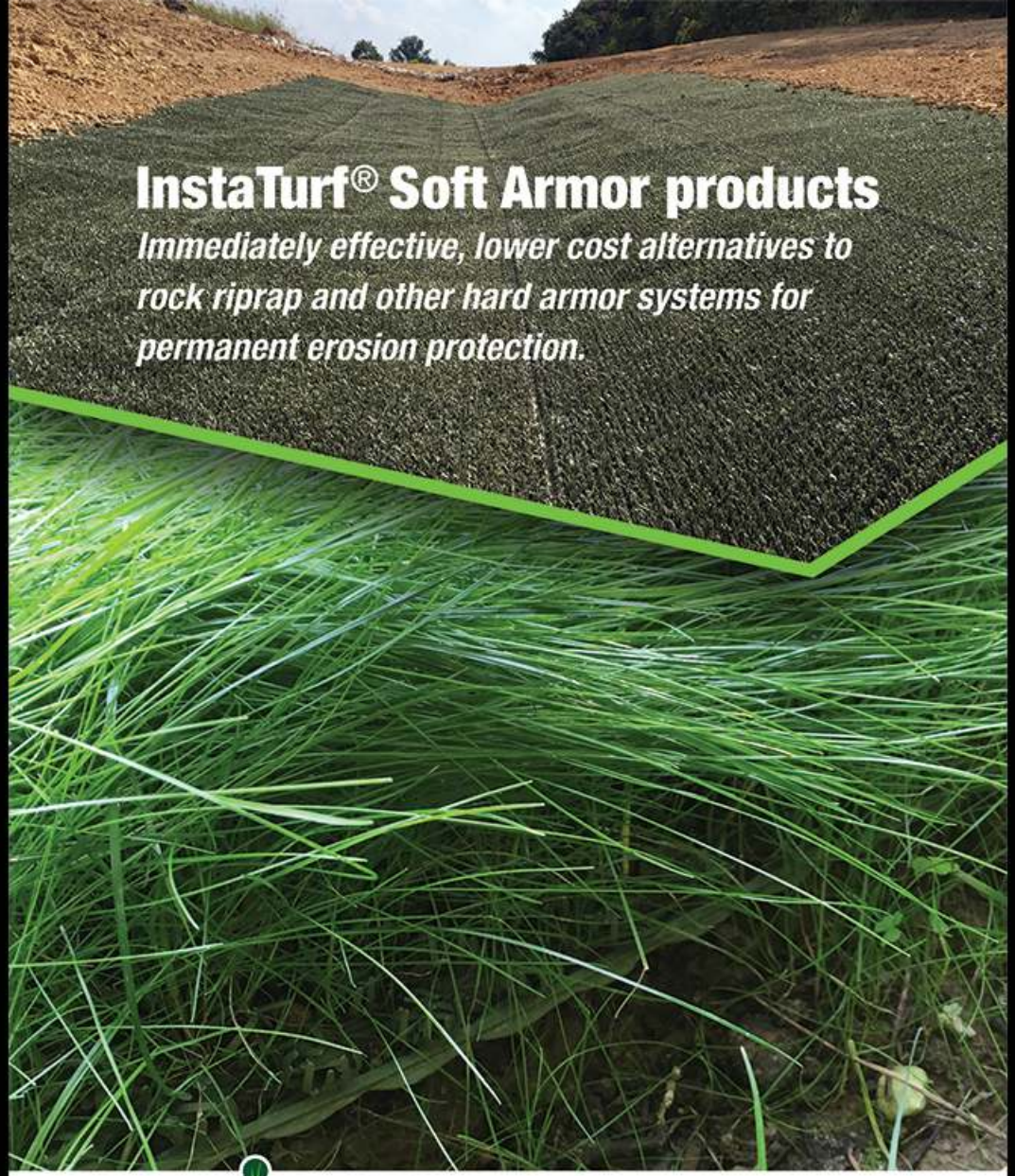


InstaTurf® Soft Armor

www.insta-turf.com

InstaTurf®
Soft Armor

You no longer need to wait for vegetation in order to attain maximum high-performance erosion protection.

Unlike conventional Turf Reinforcement Mats (TRMs) that offer limited erosion resistance before vegetation establishment, InstaTurf ShearForce Instant Armoring products immediately form a virtually non-erodible boundary layer on the soil surface, even under high water flow conditions, while facilitating the establishment of permanently reinforced, natural vegetation.

Unvegetated InstaTurf on Day One

Fully vegetated InstaTurf vs Rock Riprap in Channel

Fully vegetated InstaTurf

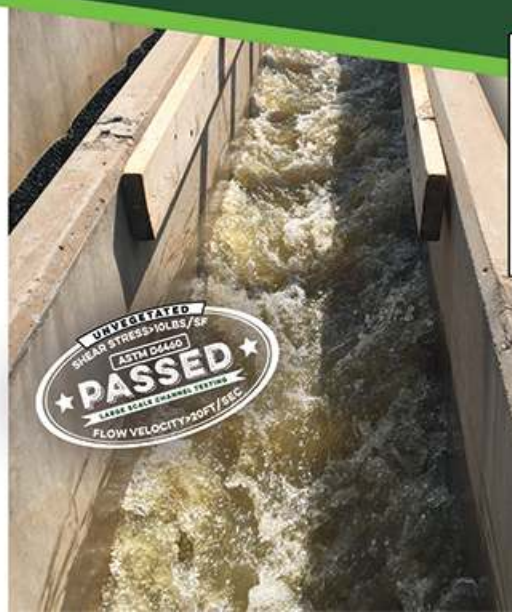
Bring it on.

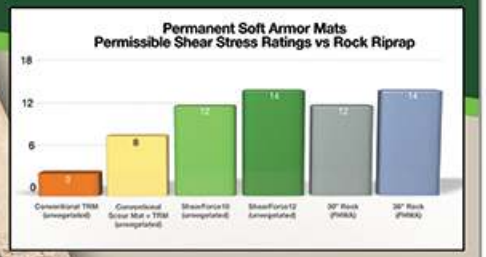
Patent Pending InstaTurf® ShearForce™10 and ShearForce™12 Hybrid-turf Instant Armoring Products reduce risk by virtually eliminating erosion under very high-flow conditions from the very first day of installation.

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.

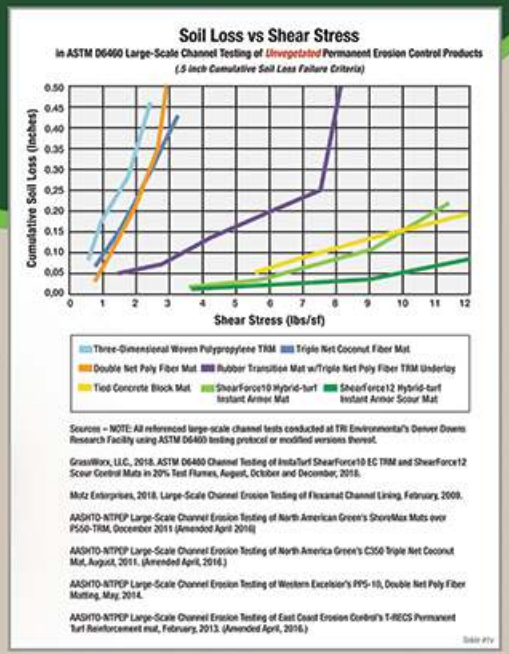
For more information and to see a video of the extreme testing process as well as real-world case studies, please visit our web site at www.Insta-Turf.com





Get a quote:

Contact Tim Lancaster 812-483-1532, tim.lancaster@grassworxllc.com or go to www.insta-turf.com to find your local InstaTurf distributor



Sources – NOTE: All referenced large-scale channel tests conducted at TRI Environmental's Denver Downs Research Facility using ASTM D6460 testing protocol or modified versions thereof.

GrassWorx, LLC., 2018. ASTM D6460 Channel Testing of InstaTurf ShearForce10 EC TRM and ShearForce12 Scour Control Mats in 20% Test Flumes, August, October and December, 2018.

Motz Enterprises, 2018. Large-Scale Channel Erosion Testing of Flexamat Channel Lining, February, 2009.

AASHTO-NTPEP Large-Scale Channel Erosion Testing of North American Green's ShoreMax Mats over P550-TRM, December 2011 (Amended April 2016)

AASHTO-NTPEP Large-Scale Channel Erosion Testing of North America Green's C350 Triple Net Coconut Mat, August, 2011. (Amended April, 2016.)

AASHTO-NTPEP Large-Scale Channel Erosion Testing of Western Excelsior's PPS-10, Double Net Poly Fiber Matting, May, 2014.

AASHTO-NTPEP Large-Scale Channel Erosion Testing of East Coast Erosion Corbrel's T-RECS Permanent Turf Reinforcement mat, February, 2013. (Amended April, 2016.)

InstaTurf®

PATENT PENDING

Soft Armor

SHEARFORCE™ 10

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 over seeded area
- Easy maintenance with standard mowing equipment

MADE IN AMERICA

SHEARFORCE™ 12

FEATURES AND BENEFITS

- 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 easy-to-handle 3 ft x 4 ft panels that weigh 30 lbs
- Simple installation, just lay it and anchor it over seeded area
- Easy maintenance with standard mowing equipment

InstaTurf™ Recommended Design Values		Channels/Outfalls/Spillways/Streambanks*					Slopes	Shorelines
			Design Shear Stress		Design Velocity			
		Manning's n	Cohesive Soils	Non-Cohesive Soils	Cohesive Soils	Non-Cohesive Soils	Max Gradient (h:v)	Max Wave Height
ShearForce10™ Hybrid-turf Instant Armor Mat	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/sec	>1:1	<=1.5 ft
ShearForce12™ Hybrid-turf Instant Armor Scour 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/sec	>1:1	<=2.0 ft

* Design values are derived from ASTM D6460 large-scale channel testing on loam soils under 4 consecutive 30 min flow 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.

GET A QUOTE: Contact Tim Lancaster 812-483-1532, tim.lancaster@grassworxllc.com or go to www.insta-turf.com to find your local InstaTurf distributor