



InstaTurf® Soft Armor products

Immediately effective, lower cost alternatives to rock riprap and other hard armor systems for permanent erosion protection.



insta-turf.com



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

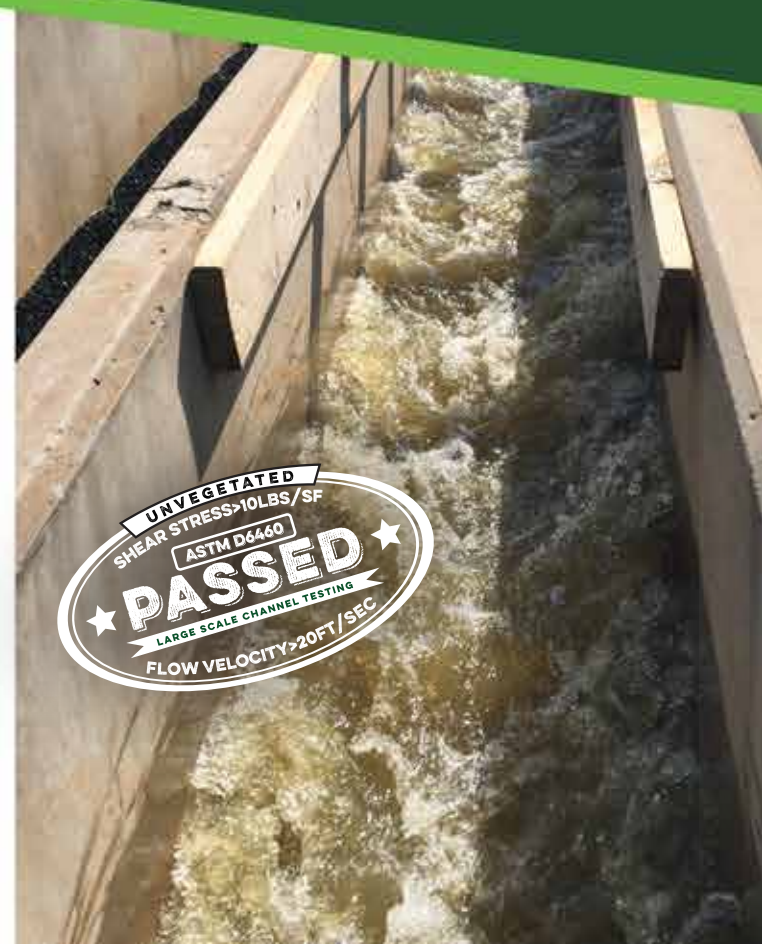
Bring it on.

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.

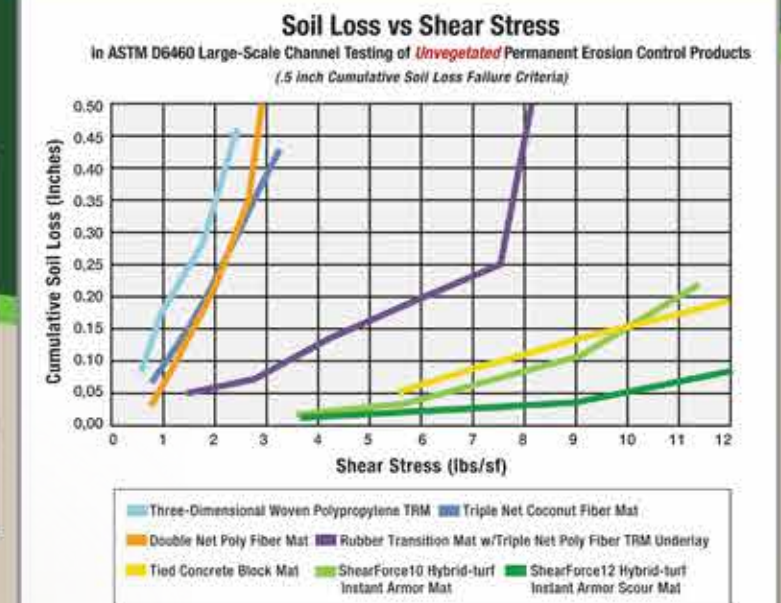
Proven in ASTM D6460 Large Scale Channel Testing without vegetation to exceed the permissible shear stress of large diameter rock! InstaTurf products are ideal for high flow channels, culvert outfalls, spillways downchutes, shorelines, and other critical areas where vegetation is slow to establish.

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.

Molz 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 PP5-10, Double Net Poly Fiber Matting, May, 2014.

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

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 colors; green or tan
- 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



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
		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™ 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



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LOCATIONS & CONTACT INFO

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SOLUTIONS WE SUPPLY

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Stabilization Fabrics

Geogrids

- Road Grids
- Wall Grids
- Slope Stabilization

Specialty Fabrics

Composite Geomembranes

- GCLs, PVC, HDPE, LLDPE, EPDM, Granular Bentonite

SEDIMENT CONTROL

Inlet Protection

- Grated Inlet, Curb Inlet, Area Inlet Protection

Ditch Checks

- Triangle Silt Dike
- GeoRidge

Perimeter Protection

- High and Low-Porosity Silt Fence, Straw Wattles, Silt Socks
- Safety Fence

Flocculants & Water Treatment

- Polymer-Based & Natural Flocculants

Sediment Basin Skimmers

Dewatering Bags

Trackout Control

- FODS
- Rumble Grates

Turbidity Curtains

EROSION CONTROL

Basic Hydraulically Applied Mulches

- Wood
- Paper
- Blends
- Straw

High-Performance Hydraulically

Applied Products

- BFM
- FGM
- Additives & Tackifiers

Temporary Erosion Control Blankets

- Coir & Jute Mat/Nettings
- Short-Term ECBs
- Extended-Term ECBs

Permanent Erosion Control Blankets

- Turf Reinforcement Mats
- HP-TRMs
- Anchor Reinforced Vegetation System

Structural BMPs

- Transition Mats
- Geoweb Cellular Confinement
- Composite Vegetated Armor System
- Flex MSE Vegetated Wall System
- Articulated Concrete Block
- Gabions
- Grout-Filled Geotextile Mats

Vegetation Establishment

- Native Seed & Turf Seed
- Fertilizers
- Organic Soil Additives
- Stratavault Soil Cells

STORMWATER MANAGEMENT

Water Quality

- Inlet Filter Boxes
- Pre-Treatment Chamber
- Nutrient Separating Baffle Boxes
- High-Flow Biofiltration Media
- Hydrodynamic Separators
- Stratavault

Water Quantity

- Modular Underground Storage Systems
- Chamber Detention Systems

Drainage

- HDPE Swale Liner
- Pipe & Fittings
- Drainage Composites
- Strip Drain

Inlet Structures

- PVC
- Drain Basins, In-Line Drains
- Landscape

Permeable Pavers

- Permeable Articulating Concrete Block
- Grass Pavers
- Gravel Pavers
- Concrete Pavers

SPECIALTY

Natural & Synthetic Coir Fiber Logs

Vegetated Reinforced Soil Slopes

Soil Anchors

Root Barrier System

AquaBlok

Muscle Wall

We are full line distributors of construction materials for all project types. Contact us for assistance with a project. From specification and development to installation and completion, we're here to help with all of your site solution needs.

GEOSYNTHETICS | EROSION CONTROL | STORMWATER MANAGEMENT
SEDIMENT CONTROL | REVEGETATION & SOIL AMENDMENTS