



**InstaTurf® ShearForce12™ Hybrid Turf Instant Armor Scour Control Mat
Product Specification**

The hybrid turf instant armor scour control mat shall provide the immediate finished look of natural grass along with the high flow scour protection of large rock riprap, while establishing permanently reinforced vegetative cover. The mat shall consist of a UV stabilized, monolithic polyethylene simulated turf structure with approximate 7/16 inch by 5/8 inch rectangular apertures adhered to a ½ inch thick, weather resistant, rubber core with 1.5 inch diameter openings on 2.5 inch centers, backed with an engineered lightweight polyester geotextile. The geotextile must be dense enough to retain fine soil particles and seed, yet open enough to allow seedling emergence. The mat shall have an unvegetated permissible shear stress rating, as determined by ASTM D6460 large-scale channel testing, of 12 lbs/sf or greater for immediate as well as long-term scour protection against turbulent, high shear stress water flow. The hybrid turf instant armor scour control mat shall have the following characteristics and dimensions, and meet or exceed the minimum physical and performance properties as specified below.

Color: Grass green

Panel Size: 3ft x 4ft, 1.33 Sys

Panel Weight: Approx. 30 lbs

InstaTurf ShearForce12 Index and Performance Properties				
Index Properties		Test Method	Units	Values
Mass Per Unit Area		ASTM D6566	lbs/sf	2.57
Specific Gravity		ASTM D792	g/cm	1.14
Tensile Strength		ASTM D6818	MD (lbs/ft)	746
			XD (lbs/ft)	752
Elongation		ASTM D6818	MD (%)	95.7
			XD (%)	88.9
Thickness		ASTM D6525	In	1.7
Open Area (Rubber Core)		ASTM D6567	%	32
UV Stability		ASTM D4355	% Tensile Retention @ 1,000 hrs	100
Performance Properties & Typical Design Values				
Manning's n Roughness Coefficient		ASTM D6460	<.5 ft flow depth	0.04
			.5 - 1.0 ft flow depth	0.03
			>1.0 ft flow depth	0.025
Permissible Shear Stress		ASTM D6460	Unvegetated (lbs/sf) - Cohesive Soils	14
		<i>Recommended</i>	Unvegetated (lbs/sf) - Non-cohesive Soils	12
Permissible Velocity		ASTM D6460	Unvegetated (ft/sec) - Cohesive Soils	30
		<i>Recommended</i>	Unvegetated (ft/sec) - Non-cohesive Soils	25

InstaTurf® ShearForce™ products are manufactured by GrassWorx LLC, St Louis, MO 63146. www.insta-turf.com