



**Product Specification - InstaTurf® ShearForce10™ Hybrid Turf Instant Armor Mat**

The hybrid turf instant armoring permanent erosion control mat shall provide the immediate finished look of natural grass along with the high flow erosion 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, 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 10 lbs/sf or greater for immediate as well as long-term erosion protection against high shear stress water flow. The hybrid turf instant armoring mat shall have the following characteristics and dimensions, and meet or exceed the minimum physical and performance properties as specified below.

Color: Grass green

Roll Sizes: 3ft x 45ft – 135 sf, 6ft x 45ft - 270 sf

Roll Weights: Approx. 49 lbs/99 lbs

<b>InstaTurf ShearForce10 Index and Performance Properties</b>				
<b>Index Properties</b>		<b>Test Method</b>	<b>Units</b>	<b>Values</b>
Mass Per Unit Area		ASTM D6566	lbs/sy	3.3
Tensile Strength		ASTM D6818	MD (lbs/ft)	363
			XD (lbs/ft)	164
Elongation		ASTM D6818	MD (%)	22
			XD (%)	37
Thickness		ASTM D6525	In	1.0
Ground Cover		ASTM D6567	%	85.9
UV Stability		ASTM D4355	% Tensile Retention @ 1,000 hrs	93.5
<b>Performance Properties &amp; Typical Design Values</b>				
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	12
		<i>Recommended</i>	Unvegetated (lbs/sf) - Non-cohesive Soils	10
Permissible Velocity		ASTM D6460	Unvegetated (ft/sec) - Cohesive Soils	25
		<i>Recommended</i>	Unvegetated (ft/sec) - Non-cohesive Soils	20

InstaTurf® ShearForce™ products are manufactured by GrassWorx LLC, 2381 Centerline Industrial Drive, St Louis, MO 63146. Insta-Turf.com

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WATERWORKS

Call your local Ferguson Waterworks representative for more information.