

SHEARFORCE 10 SOFT ARMORING MAT

HIGH-FLOW EROSION CONTROL MAT OFFERING IMMEDIATE PROTECTION PRIOR TO VEGETATION

ShearForce 10 is a soft armoring erosion control product consisting of a green, simulated turf backed with an engineered geotextile fabric. The simulated turf slows down water flow and protects the ground from erosion. In addition, the fabric holds the soil and seed in place and protects the root mass as vegetation is established. Often used in place of rip rap or traditional TRMs, this product is designed to facilitate vegetation and combat erosion in high-flow applications such as channels, canals, swales, basins and roadside ditches.





Before Vegetation



- Simulated vegetation
- Highly UV stable (25-yr design life) and weather resistant
- High performance/high flow protection (pre and post vegetation)
- · Lightweight rolls
- Roll sizes: 3ft x 45ft & 6ft x 45ft rolls

BENEFITS

- More user-friendly and cost efficient than rock rip rap
- Simple installation lay it and pin it
- Provides immediate protection against erosion
- Environmentally friendly (facilitates water filtration/infiltration)
- Promotes and protects vegetative growth
- Easy to transport and install without requiring machinery
- No maintenance required
- Mowable
- Aesthetically pleasing both before and after vegetation
- Made in USA



After Vegetation





Contact your local sales associate: Call 800-448-3636 or visit FERGUSON.COM to get started.

APPLICATIONS

- · High-flow channels
- Extreme slopes
- Areas where vegetation growth is slow and sparse
- Drainage swales
- Detention basins
- Banks / shorelines
- · Canals / levees

- Solar panel driplines
- Easements
- Tight-quartered areas

RECOMMENDED DESIGN VALUES*

CHANNELS / OUTFALLS / SPILLWAYS / STREAM BANKS						SLOPES	SHORELINES
Vegetated	Manning's n	Design Shear Stress		Design Velocity		Max	Max
		Cohesive Soils	Non-Cohesive Soils	Cohesive Soils	Non-Cohesive Soils	Gradient (h:v)	Wave Height
No	.025040	12 lbs/sf	10 lbs/sf	25 ft/sec	20 ft/sec	>1:1	<=1.0 ft
Yes	.025400	16 lbs/sf	14 lbs/sf	30 ft/sec	25 ft/sec	>1:1	<=1.5 ft

*Design values are derived from ASTM D6460 large-scale channel testing on loam soils under 4 consecutive 30 minute flow events in 20% gradient test flumes. A safety factor 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.

Shear Stress (lbs/sf) 0 2 4 6 8 10 12 14 16 ShearForce 10 vs Alternatives Conventional TRMs **Conventional TRMs** 24-inch Rock Rip Rap - vegetated - unvegetated ShearForce 10 ShearForce 10 -30-inch Rock Rip Rap vegetated unvegetated

PRODUCT COMPARISON



SHEARFORCE 10 PROVIDES >3X THE IMMEDIATE CHANNEL EROSION PROTECTION WHEN COMPARED TO CONVENTIONAL TRMS AND MEETS OR EXCEEDS THAT OF 30" ROCK RIP RAP

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