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ENVIRONMENTAL
CONSTRUCTION SOLUTIONS

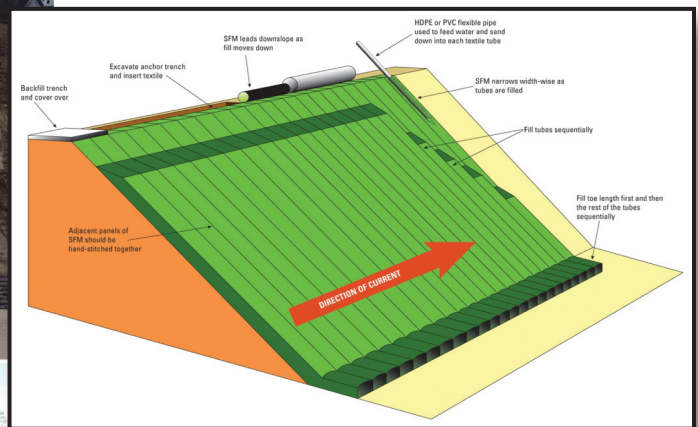


TENCATE
Mirafi

Geotube® Coastal & Green
The New Generation Geotube® Composite Series



Sand Filled Mattress



Wetland, Stream Bank and Shoreline Restoration

TenCate protects people and their living environment with the development and production of sustainable products and solutions. For more than 40 years, TenCate Geotube® technology has protected shorelines, rebuilt beaches, and reclaimed land from the sea. TenCate Geotube® containment technology is a proven, cost-effective method for a variety of shoreline protection and marine construction projects. TenCate Geotube® technology has been used to produce sand dune cores; wetlands and other habitats; jetties, dikes, and groynes; and underwater structures – and to even raise brand new islands from under water.



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Call or stop by your nearest service center today!

ROANOKE, VA	CHARLOTTESVILLE, VA	RICHMOND SOUTHSIDE	RICHMOND WESTEND	VIRGINIA BEACH, VA	CHANTILLY, VA	UPPER MARLBORO, MD
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Fax: 540-343-1484	Fax: 434-296-9005	Fax: 804-744-9899	Fax: 804-754-7179	Fax: 757-340-8875	Fax: 703-956-6815	Fax: 301-383-2272
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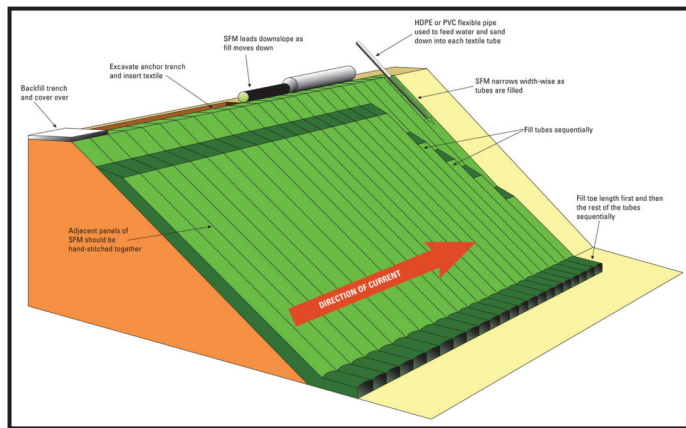


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Sand Filled Mattress Installation and Filling

Installation Procedure SFM

1. Remove debris and level the area for the SFM installation. The slope should be graded to create an approximate 3:1 slope.
 2. Dig a top Anchor Trench at the crest of the slope as detailed in the cross section drawing.
 3. Dig a toe Anchor Trench as detailed in the cross section drawing.
 4. Cover the surface of the slope where the SFM will be installed with a 6m clear construction poly membrane. The purpose of the membrane is to insure that the surface is not eroded by the run-off water during the SFM filling operation.
 5. Cut the SFM to the length required by the prepared slope. Allow for the toe and top Anchor Trench embedment length requirement.
 6. Sew the bottom of the SFM tubes closed with 1000 denier polyester sewing yarn.
 7. Unroll the SFM panel down the slope.
 8. Secure top of SFM panel in the top Anchor Trench and be sure that end of SFM panel is positioned in toe Anchor Trench.
 9. At crown of slope, cut a 20" wide transverse slit in top layer of SFM tube and insert 6" PVC pipe thru slit down the tube up to 8' but not more than 1/2 the length of the tube.
 10. There are several methods of filling. Attach a funnel with a 6" spout onto the 6" PVC pipe.
 11. Place a scoop of sand in the funnel and flush into tube with a 2" stream of water.
 12. As the tube is being filled, a hay hook may be used to lift the top layer of the SFM to help the sand flow the entire length of the tube.
 13. Continue until tube is full of sand with the tube height of 6" to 7".
 14. Once the tube has been filled, sew the slit at the top of the tube closed with 1000 denier polyester sewing yarn.
 15. Continue the process until all the tubes are filled.
- The green sand filled mattresses used are in a roll form with 3.8m width and 40m length. Ten tubular compartments are formed through the parallel stitching that space 0.35m apart. After the sand filled mattresses is filled with sand, it will have an effective thickness of 0.16m.



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