

Futerra® TRMs

General Installation for Slopes and Channels Used for Futerra 7003, 7010, 7020 and R45 Series

These suggestions represent generally accepted procedures for successful installation of Futerra TRMs. These instructions may be followed, modified, or rejected by the owner, engineer, contractor or their representative since they, not Profile are responsible for planning and executing procedures appropriate to a specific application.

Futerra TRM is packaged in rolls that are easy to ship, store and install. No heavy equipment is needed for installation of matting: a roll can be handled by one or two workers.

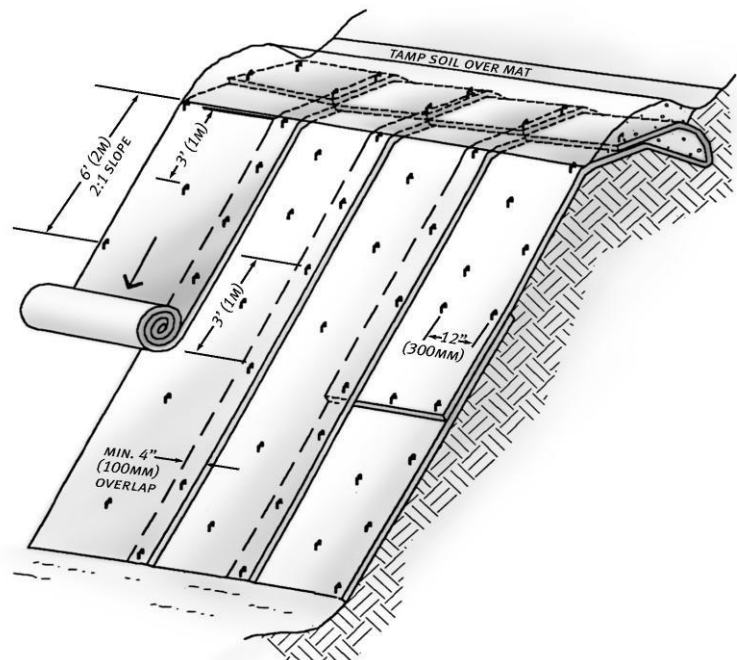
- 1. Site Preparation:** Whether slope or channel, the site must be shaped to the design specifications (grade, geometry, density of soil, etc.) and then dressed to be free of soil clods, clumps, rocks, or vehicle imprints of any significant size that would prevent the Futerra TRM from lying flush to surface contours.
- 2. Anchor Trench:** Anchor trenches are required to securely fasten the Futerra TRM to the ground surface. In channel applications, the initial anchor trench is installed at the beginning of the channel and intermediate check slots are spaced at approximately 25 feet* intervals downstream depending on flow conditions and whether you soil fill or not. Futerra TRM is installed into the bottom of the trench and fastened with pins spaced 3 feet apart. The anchor trench / intermediate check slots are then backfilled and compacted in a manner as to not damage the Futerra TRM.

* In lieu of excavated check slots, a double row of pins [or a number 1 or 2 rebar pinned across the mat] may be used at 25-foot intervals.

- 3. Futerra TRM Installation:** Roll the Futerra TRM down the slope or channel. The overlap between rolls is 3 to 4 inches. The splice between rolls is between 2 and 3 feet. Shingle the roll in the direction of water flow. Install pins down the center of each mat (mat is 3.25 feet wide) staggering them between the outside pins with a spacing interval of 3 to 5 feet. Pins patterns will vary depending upon application, soil type, slope or channel slope, geometry, etc. A rule of thumb for estimating the amount of pins required for a project is:

1:1 to 2:1 slopes
3-4 pins per sq. yd.

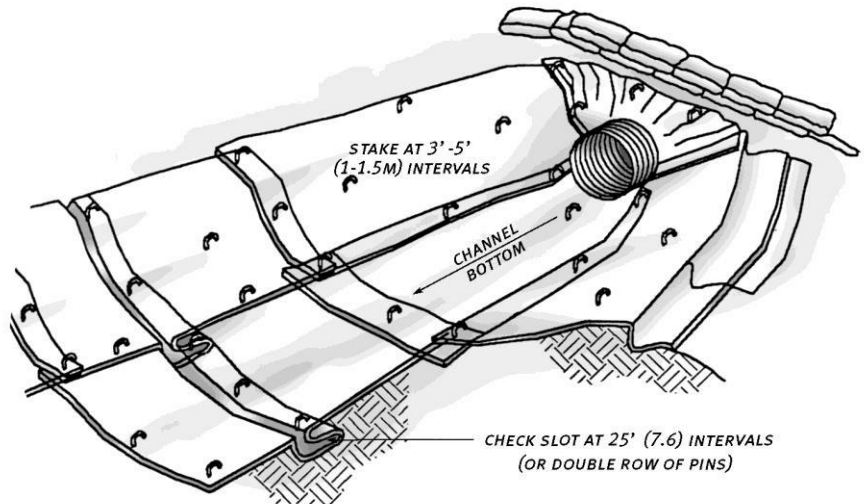
3:1 and lesser slopes 2-
3 pins per sq. yd.



High flow channel
3-4 pins per sq. yd.

Low flow channel 2-
3 pins per sq. yd.

Always install two rows of pins spaced 1.5 x 1.5 feet apart at all roll splice locations.



4. **Anchoring Devices:** Typically 11-8 gauge of a 6" x 1" x 6" metal pins are used. When surface soil conditions are loose, use 8" x 1" x 8" or 12" x 1.5" x 12" metal pins, 8" - 18" pins with 1.5" diameter washer, or 12-30" J-Shape pins (bent rebar) having a 1/4" diameter. Drive pins or pins flush with the ground surface.
5. **Soil Filling:** Soil filling Futerra TRM accelerates performance because the Futerra TRM, soil and the new vegetation interact together to resist shear forces when water is flowing through the channel or on top of a slope. If soil filling is utilized spread 1/2 to 3/4 inches of fine soil into the mat to completely fill it.
6. **Seeding:** Seed before and after soil filling to create a better established root structure and increase vegetation strength. Check with your local seeding consultant to verify appropriate seed and fertilizer mixture.
7. **Sod Installation:** If covering Futerra TRM with sod, soil filling is required. Place sod in the direction of water flow. Periodically install a row or two of staples perpendicular to the flow to reduce the possibility of water flowing along the seams of the sod. In most cases, you should pin the sod down to prevent movement.
8. **GreenArmor™ System:** Hydraulically fill the TRM with 0.5 inches of FGM™, applied with hose at close range. Optimum application rate is 3,500 lbs/acre or to the depth of where the tips of TRM are still exposed. Strictly comply with FGM manufacturer's installation instructions and recommendations. For optimum FGM pumping and application performance, use approved mechanically agitated, hydraulic seeding/mulching machines, a hose of sufficient length to reach the TRM and a 50 degree tip/nozzle is highly recommended. Apply FGM from hose positioned over shoulder with nozzle approximately at chest level (48-60"), pointing straight down to achieve optimum TRM infill. For optimum hydraulic performance and vegetative establishment, be careful not to overfill the TRM. The tips of the TRM shall be slightly exposed.

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