How and where to use geotextiles

- Geotextiles control soil erosion in a variety of landscape settings:
  - ditches
  - embankments
  - slopes, ponds
  - storm channels
  - shorelines
  - acid slopes
  - bare slopes
  - storm channels
  - embankments
  - cart paths
  - bridges
  - fences
  - bunkers
  - greens

Golf course applications include:
- embankments
- cart paths
- bridges
- fences
- bunkers
- greens

The primary purpose of geotextiles is to prevent soil erosion. They also save labor by requiring less repair to eroded land.

Most geotextile manufacturers tout the lightweight quality of their product. Weight is important. Most repair projects require multiple rolls of material.

Root reinforcement is another quality of the best geotextiles. The purpose here is to permit root growth, and provide an anchor for secure rooting.

Texture of erosion control products varies, from mesh-like to perforated polymers.

Unlike weed control fabrics, which allow no air or sunlight through, erosion control products allow seed germination. The materials' ability to retain or allow moisture to penetrate is the key to early establishment of grasses and the subsequent permanent control of erosion of newly-graded slopes and ditches. Post-winter seeding, if needed, can be applied through the matting.

Akzo Industrial Systems Company of Asheville, N.C., offers the following step-by-step instruction when using its Enoamat for lining a typical 8-foot side slope ditch:

1) Shape and compact the ditch to specifications and dress the site so it is free of rocks, soil clumps or large vehicle tracks. Cut side slope shelves and check slots.

2) Starting downstream, cut terminal slot and align the initial roll along the ditch center line. Stake into slot, then backfill. Roll the mat upstream over refilled terminal and stake. Progress upstream with peaked side down, working across the check slots and pinning with temporary stakes to maintain tension and alignment.

Tuck mat into slots and stake. Stretch mat about five percent before staking.

3) Side rolls should follow in staggered sequence behind the initial roll. Working outward from the ditch center line, overlap the first roll by four feet with another roll and lay it upslope onto the side slope shelf.

4) Proceeding upstream, stake overlaps and mat edges on side slope shelves at three-foot intervals.

5) Repeat steps 3 and 4 with the remaining side slope roll.

6) If splicing a new roll is necessary, use three-foot overlaps and shingle downstream.

7) Secure the upstream roll ends in a terminal slot.

8) Back-fill and tamp soil into check slots and both upper and lower terminal slots.

9) Seed area.

The most important installation tip is that the material should be securely anchored to dry ground before seeding. Overlap should be approximately four feet, at three- to five-foot intervals.

Mats are usually secured by wooden stakes or metal or plastic staples that penetrate the soil about six inches.

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WHERE TO FIND GEOTEXTILES

- Advanced Drainage Systems, Inc., 3300 Riverside Dr., Columbus, OH 43221. Circle No. 300 on Reader Inquiry Card
- Akzo Industrial Systems Co., P.O. Box 7249, Asheville, NC 28802; (704) 258-5050. Circle No. 301 on Reader Inquiry Card
- Contech Construction Products, Inc., P.O. Box 800, Middletown, OH 45042; (513) 425-5896; makers of Eromat, a clean, weed-free, knitted straw blanket. Circle No. 302 on Reader Inquiry Card
- Environmental Protection, Inc., P.O. Box 333 Mancelona, MI 49659. Circle No. 303 on Reader Inquiry Card
- Phillips Fibers Corp., P.O. Box 66, Greenville, SC 29602-0066; (502) 583-6591. Circle No. 305 on Reader Inquiry Card
- Reemay, Inc., 70 Old Hickory Blvd., Old Hickory, TN 37214. Circle No. 306 on Reader Inquiry Card
- Research Products Corp.; P.O. Box 1467, Madison, WI 53701; (800) 334-6011; EarthCard temporary erosion control blankets. Circle No. 307 on Reader Inquiry Card
- Synthetic Industries, Inc., Construction Products: 4019 Industry Dr., Chattanooga TN 37416; (800) 621-0444; Landlok erosion mats. Circle No. 308 on Reader Inquiry Card