Erosamat Type 3

abg creative geosynthetic engineering

Delivery and storage

Erosamat Type 3 is supplied in rolls without outer packaging. Standard rolls weigh 30-35kg, comprise 2.5m x 25m of **Erosamat**, and can be cut with a sharp knife. Although the products are resistant to UV light, they must be covered if stored for long periods. Store on a firm, flat surface and do not stack more than 5 rolls high. Roll or carry (but do not drag) the **Erosamat** to the place of work.

Installation Method

Step 1 – Prepare Slope and Excavate Anchor Trenches.

The slope should be properly compacted, free from existing vegetation, roots and stones and able to sustain vegetative growth. Voids, where possible, should be filled to offer a flat and even profile (Fig 1). Excavate anchor trenches (Fig 2) at the toe, crest and sides (if specified on the drawings) of the slope not less than 200mm deep or as specified on the drawings (see alternative trench details overleaf).

Step 2 – Place Erosamat in Anchor Trench. Place Erosamat down the side and along the base of the anchor trench at the top of the slope, pin at 1m centres or as specified on the drawings (Fig 3).

Step 3 – Lay Erosamat on Slope. Unroll Erosamat down the slope. To prevent down-drag, intermediate pins should be placed at no less than 1m centres (Fig 4, see overleaf for details of pinning frequency). Ensure that the Erosamat is in intimate contact with the ground IN ALL PLACES by adding additional pins in any hollows or undulating ground (Fig 5). Avoid walking on the surface unnecessarily.

Step 4 – Place Erosamat in Toe Trench. Cut Erosamat to length and pin to bottom trench (and side trench where required) as per the top trench or as specified on the drawings. Backfill trenches with excavated material or as specified on the drawings.

Step 5 – Place Topsoil and Seed. The Erosamat should be filled and covered, from the bottom to the top of the embankment, to a depth of 10mm of friable topsoil (Fig 6, approx. 75-100kg/m²). Seed should be spread over the surface and raked into the topsoil, or placed in accordance with the seed supplier's instructions.

Alternatively, the bare mat may be hydroseeded—especially on steep slopes. It is essential to ensure that vegetation growth does not inhibit the intimate contact between the ground and the Erosamat. Watering is essential if the slope is likely to dry out.



Fig 1: Prepare slope to create even surface



Fig 2: Excavate anchor Trenches



Fig 3: Pin Erosamat into Anchor Trench



Fig 5: Ensure Erosamat is in intimate contact with the ground IN ALL PLACES



Fig 4: Pin Erosamat to slope



Fig 6: Rake in 10mm cover of friable topsoil

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Further Details

downstream mat.

Alternative Anchorage Details. Shown in Fig 7 are alternative options for anchoring the top, bottom or sides of the Erosamat for various applications.

Overlaps - Cross-slope Overlaps. A minimum of 300mm 'roof tile' overlap should be provided. Pins should be placed at the top and bottom of the overlap at 500mm centres or as shown on the drawings (Fig 8). Overlaps - Down-slope Overlaps. A minimum of 100mm overlap should be provided with pins placed in a single line at 500mm centres (or as shown on the drawings (see Fig 9). Where cross-slope water flows are expected the upstream mat should be placed over the

Fixing Pin Details. Fixing pins are either straight "J", "U" shaped, or helical pins. They are specified dependant on ground conditions, slope and loadings, with "U" pins typically required on watercourses.

Intermediate Pinning. Shown in **Fig 11** is a general guide to intermediate pinning frequency depending on the slope angle. In areas of high turbulence or increased velocities, extra pinning should be used. **Submerged Areas.** The use of 2-5mm stone chippings should be considered where Erosamat is to be permanently submerged (chippings to be placed prior to topsoil fill in non-submerged areas).

Planting. Shrubs and plants can be planted through Erosamat by cutting an 'L' shape. Once planted, the Erosamat must be pinned locally around the plant. Full erosion protection cannot be guaranteed until all planted vegetation has taken hold.

Equipment and materials required

Materials: ABG Erosamat, pins, friable topsoil. Tools: Excavator, dumper, sharp knife, hammer, rake.

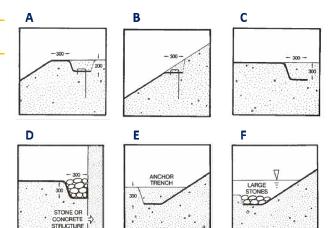


Fig 7: Alternative anchorage details





Fig 8: Cross-slope overlaps and pinning

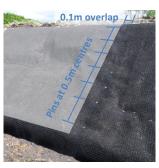
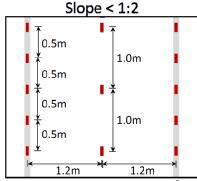


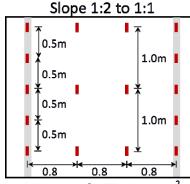
Fig 9: Down-slope overlaps and pinning



Fig 10: Completed Slope



Minimum of 1.25 pins per m²



Minimum of 1.67 pins per m

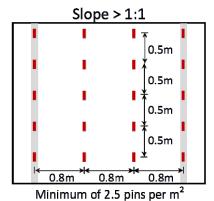


Fig 11: General Guide to Erosamat intermediate pinning frequency