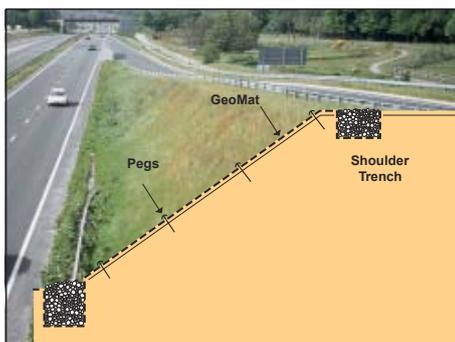


# Hy-Tex GeoMat Permanent Erosion Control & Turf Reinforcement Mat



Natural vegetation can provide good soil erosion protection. However, this may not be adequate on steep slopes (including those strengthened with soil reinforcement, ground anchors or soil nails).

Areas prone to temporary water inundation, wave run-up or intermittent high velocity flows, such as river banks, shorelines, ditches, flood bunds and dam spillways, can also suffer from soil erosion. In these cases, an additional permanent erosion protection layer is needed to enhance the resistance of the vegetation - but one which visually becomes part of the slope.

The Hy-Tex **GeoMat** range is used to control soil erosion. It consists of a flexible three-dimensional polymer mat which initially stabilises the surface whilst assisting vegetation to establish. It then goes on to provide long-term, tenacious reinforcement of the root system. The mats have cusped surface which provides an array of pockets and traps for topsoil retention.

The thick, dimensionally-stable matrix of filaments presents an ideal medium for anchorage and reinforcement of a root system. Reinforced grass slopes have been shown to have an erosion resistance able to withstand current velocities in excess of 4m/sec.

**GeoMats** have unsurpassed drape qualities, which allows them to closely conform to, and maintain intimate contact with, the soil surface. This can be critical to prevent uplift of a mat as well as to control soil erosion below. In addition, roots will not be able to penetrate through to the soil surface if voids exist underneath a mat.

**GeoMats** are manufactured, by a quality assured company, from UV stabilised polyethylene - a polymer that is chemically inert and therefore non-corrodible. Polyethylene is not susceptible to water absorption and deterioration and non-polluting to its installed environment. It is also microbiologically inert and therefore not attacked by bacteria and provides no nutrient for animals.

There are two standard grades: **GeoMat 20 Z 500** consists of three dimensional fused matrix of polyethylene strands, and is intended for routine erosion control applications, while the **GeoMat 20 Z 500 M** also incorporates a reinforcing mesh for more demanding applications such as steep slopes/high flow forces. Geogrid reinforced versions are also available for heavier duty applications.

#### The Benefits:

- Cost-effective long-term solution for erosion control
- Easy, quick and economic to install
- Natural, attractive appearance
- Environmentally safe
- May replace some obtrusive and expensive traditional revetments
- Maintains close contact with the soil profile for maximum root anchorage
- Aids establishment of initial vegetation growth
- Avoids topsoil creep on slopes
- Protects against 'bald spots' on grass slopes subject to high wear
- May be used with hydro-seeding and soil nails

Hy-Tex	GeoMat 20 Z 500	GeoMat 20 Z 500 M
Thickness (mm)	20	18 (±3)
Tensile Strength MD/CD (kN/m)	1.35/0.85	4.5/5
Elongation MD/CD (%)	30/30	25/25
Weight g/m <sup>2</sup>	500	500
Flow Velocity (m/s)	2 to 6	
Material	Black, UV stabilised, polyethylene	
Structure	3D open matrix	3D open matrix with mesh
Roll sizes (m)	2.50 x 25.00m	2.10 x 25.00m

**Installation Guidelines:** 1 Prepare the slope by trimming the profile. 2 Place 50-70mm of topsoil on the prepared slope (optional depending on the soil type and uniformity of the prepared slope). 3 Unroll the mat down the face of the slope, lapping adjacent strips by a minimum of 100mm. 4 Fixings (either pegs or approved mild steel pins) should be at around 1m centres (depending on the slope angle) along the laps. 5 Bury the top and bottom ends of each strip at the shoulder and the toe, respectively, in shallow trenches typically 450mm wide by 250mm deep. 6 Sow grass seed into the mat. 7 Brush friable soil into the full depth of the mat. 8 Re-sow the slope and apply (optional) fertiliser. 9 Lightly tamp the soil surface. Omit steps 6 to 9 for planted slopes. The soil-filled mats can be slit longitudinally to accommodate planting.