



GeoMat 20 Z 500



Geomat 20 Z 500 M

## GeoMat™

The Hy-Tex GeoMat™ range of three dimensional, synthetic, cusped erosion control geomats are used to provide permanent reinforcement to the grass root matrix for permanent surface erosion protection.

### Erosion Control

Hy-Tex GeoMats™ are the ideal solution where vegetation requires permanent assistance protecting the ground from weather and water erosion.

The dense fused strands imitate the role of a root matrix - binding and trapping soil particles, as well as fertile humus, and reinforcing the soil.

### Vegetation Promotion

Hy-Tex GeoMats™ provide stable conditions for rapid development of vegetation.

The filaments also offer long term support to the developing plant root matrix, assisting them to resist undermining by harsh erosion forces.

### Typical Applications

Hy-Tex GeoMats™ are recommended on sites where established vegetation alone is unable to resist erosion. Such locations can include riverbanks, drainage channels and steep slopes.

They are made from extruded polypropylene monofilaments or stitched nets to provide effective soil reinforcement.

### Features/Benefits:

- Long term erosion control
- Tough, yet flexible
- Promotes vegetation establishment
- Permanent protection
- Allows roots to intertwine and bind to the mat

Feature	GeoMat 20Z 500	GeoMat 20Z 500 M	GeoMat 20Z G50
Thickness (mm):	20	18 (±3)	20
Tensile Strength MD/CD (kN/m):	1.35/0.85	4.5/5	50
Elongation MD/CD (%):	30/30	25/25	3
Weight g/m <sup>2</sup> :	500	500	250
Flow Velocity (m/s):	2 to 6	2 to 6	4 to 7
Material:	Black, UV stabilised, polyethylene	Black, UV stabilised, polyethylene	Multi-filament polymer coated glass fibre reinforcing grid
Structure:	3D open matrix	3D open matrix with mesh	3D open matrix
Roll sizes (m):	2.50 x 25.00m	2.50 x 25.00m	2.50 x 24.00m

Application Categories: Ground Engineering



Agrotextiles



Biodegradables



Geotextiles



Specialist



Wildlife



Living Walls &  
Roofs



Accessories

## GeoMat™

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.

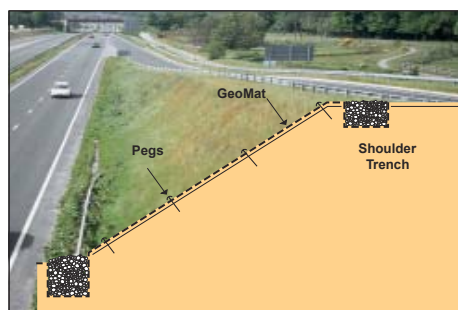
GeoMats are manufactured, by a quality assured company, from UV stabilised polyethylene - a polymer that is chemically inert and therefore non-corrodible. Polyethylene is not susceptible to water absorption and deterioration and non-polluting to its installed environment. It is also microbiologically 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.

### 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.



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