



What is Erosion Control?

Erosion control with geomat and vegetation is a method to stabilize slopes and prevent soil erosion. This process involves placing a biodegradable or synthetic geomat over the slope surface, which helps anchor the soil and reduces the impact of rainwater.

The geomat provides an ideal environment for vegetation to grow, as its structure promotes root penetration and soil retention. Once vegetation is established, the roots further reinforce the slope, enhancing stability and reducing the risk of erosion.

This approach combines mechanical protection with natural reinforcement, making it a sustainable solution for long-term slope stabilization while promoting a greener landscape.

Erosion control can be combined with soil nailing for extra slope reinforcement.

Applications

- Highway and roadsides.
- Construction sites.
- Mining and quarries.
- Urban landscaping.
- Dams.
- Landslide-prone areas.

Benefits

- Stabilise the soil and reduce surface erosion from rainfall or runoff.
- Promotes vegetation growth on slopes and gives aesthetic appeal to give a more natural-looking.
- Stabilise the whole slope to prevent landslides or minor soil slips.
- Helps manage water infiltration and velocity.
- Cost effective due to less engineering requirement.

Technical Specification

- Geomat with or without steel reinforcement
- Seed mix consists of legumes with fast germination
- Steel U-pins and T-pins are used to secure the geomat in place, ensuring it conforms to the slope profile.
- Minimum vegetation coverage for 70% within 3 months after installation
- 2-5 years of longevity (geomat provides protection until vegetation fully establishes)

Typical Sequence

1. Geomat Installation





drilling & geotechnical

EROSION CONTROL

2. Vegetation Installation



Tebing Tinggi, North Sumatera, Indonesia (2022)



Tiu Suntuk Dam, West Nusa Tenggara, Indonesia (2024)

3. Maintenance Period



Our Projects



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