

Earthlok® - State-of-the-Art Erosion Control and Slope Protection for Tailings Dams

Earthlok® Geocomposites are a marriage of concrete in a high-strength geotextile reinforcement to give both dimensional stability and flexibility. This flexible concrete matting system consisting of pyramid-shaped concrete blocks supported on a matrix of high-tenacity polymer reinforcement.

The unique combination of dimensional stability and flexibility allows installation under difficult conditions for example with uneven subgrade, steep slopes or even in underwater applications.

The adaptability of the geosynthetic-concrete armour system gives it a winning edge over GCCM, concrete mattresses and other more conventional concrete-based solutions.

The Earthlok® concrete geocomposites can accommodate undulating ground contours and complex geometries and is ideal for the following applications:

- Lining Splash Zones and Mining Dam Batters
- Infrastructure Slope Protection
- Embankment Protection and Stabilization
- Erosion Control

Some of the challenges in mining and include exposure to extreme weather events, increased embankment traffic loading, instability effects on soil and rock slopes and impacts of climate change.

Earthlok® is an innovative solution for mining infrastructure slope stabilisation that provides improved factor of safety and significantly reduces the probability of slope failure and erosion especially on dam batters/splash zones.

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