



**TeMa**  
Technologies  
and Materials

South Africa



## EMBANKMENT STABILISATION AND EROSION CONTROL USING GEOCELLS

### NATURE OF INTERVENTION

Exposed side slopes are prone to weather conditions and operational requirements which can negatively affect their stability and surface conditions. Washout and erosion are particular problems facing unvegetated slopes as is the management of contaminated stormwater falling off such areas in industrial environments.

While vegetation is the most cost effective and environmentally preferred method in addressing the sustainability of such areas, this is often not feasible due to the environment and climatic conditions. Often more robust and durable methods are required.

The stability, ease of construction and relative cost of such alternative methods is an important consideration. Many geosynthetic products offer benefits in these areas over more conventional approaches such as reinforced concrete slabs.

### Location:

Secunda, Mpumalanga, South Africa

### Products:

- TeMa-CELL 200x200x100 B

### Quantity:

2 500 sqm footprint

### Application:

Slope stability, Storm water management and Erosion control.

### Date:

March, 2019





## SOLUTION

**TeMa-CELL 200x200x100B**, TeMa's Polyethylene (PE) coated, Polypropylene (PP) woven tape geocell system with stabilizing perimeter border, was used in conjunction with a locally sourced cement/slag infill. This combination provided for a durable surface finish to the side slopes that offered stability, erosion protection and the accumulation//control of storm water volumes.

The product was easy to install using the integrated stabilizing perimeter border to each panel which reduces the amount of anchoring points and effectively expands open the honeycomb structure for filling.

The use of the TeMa Geo products, provided significant benefits over other conventional materials to the project in terms of cost, ease of installation and a reduction in construction time.



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