

A1-M1 LINK ROAD, MAURITIUS

Better traffic flow and road safety with MIRAFL Polyfelt



Industry: Transportation
Application: Roads
Location: Mauritius
Product: MIRAFL® Polyfelt® DC401

concrete wall. To address the need for drainage, a system was constructed to evacuate ground and pore water. This drainage system effectively transported water along the wall to the drainage pipe, protecting the wall from direct contact and potential damage.

Overview

The Government of Mauritius, through the Road Development Authority, initiated the construction of the A1-M1 Link Road to create an effective and efficient road network that supports socio-economic development. The project aimed to improve traffic flow, reduce congestion time and costs, enhance road safety, and provide high-quality infrastructure.

Challenge

At the junction of the Chebel Bridge and A1-M1 Link Road, the road's embankment was supported by an L-shaped

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CASE STUDY

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Solution

Two drainage systems were considered: conventional gravel drains and geosynthetic drainage mats like **MIRAFI Polyfelt DC401E**. Gravel drains, although commonly used, posed challenges due to the cost and transportation of gravel from natural resources. In contrast, drainage mats provided a practical alternative. With comparable drainage capacity and easier installation, they offered economic benefits for both the project owner and contractor.

MIRAFI Polyfelt DC401E, a geocomposite, consisted of a geonet and a filter geotextile. The geonet is made from high-density polyethylene (HDPE), and the filter geotextile from polypropylene (PP). These materials exhibit low compressibility, enabling high discharge capacity even under heavy loads. They are suitable for various surface drainage applications.

Both the geonet and filter geotextile demonstrated excellent resistance to chemicals and biological factors, allowing their safe use in contact with soil and construction materials such as concrete.



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