

**RESURFACING OF ILESHA-AKURE ROAD**  
ONDO-STATE, AKURE, NIGERIA

**Soil Stabilization and Pavements**  
**Product: Geogrids and Geotextiles**

**Problem:**

Flexible pavement road of 7.3m width (66km) in the western part of Nigeria, Ilesha-Akure road, a major roadway for heavy duty trucks had deteriorated and had been in a deplorable state for quite a while. One of the major concern was the need of the road to withstand the weight of heavy duty construction vehicles that would be accessing that route to other major cities in Nigeria, as well as to reduce frequent accidents on the highway. The structural and functional life of the pavement has also been affected, thereby the need for rehabilitation.

**Solution:**

Due to the deplorable state of the road and the threat to motorists and the citizens living along this route, a South African consultancy firm was hired to make a fresh design. After thorough studies by the firm, the consultants found it ideal to recommend the use of Macgrid AR G-Asphalt Reinforcement, a glass fibre and Polymer Geogrid to reinforce the wearing course, thereby increasing the design life of the road.

The 50kN/M Macgrid AR G is a geogrid for asphalt reinforcement consisting of polymeric geogrids or glass fibre strands arranged in a grid shape with a polymeric coated mesh both coupled with a nonwoven geotextile.



Before construction



During Construction



During construction

**Client:**

FEDERAL MINISTRY OF WORKS

**Main contractor:**

KOPECK CONSTRUCTIONS

**Designer:**

ARIAL 10 PT—CAPITAL LETTERS

**Products used:**

GEOGRIDS, GEOTEXTILE, MACGRID AR G

**Date of construction**

MAY 2015

## Benefits:

1. It reinforces the wearing course and subsequently extends the service life of the road.
2. It will also correct any functional deficiencies by significantly extending the service life.
3. As a reinforcement material, it provides a lateral restraint within the asphalt which increases the resistance to rotting and shoving.
4. It is easy to install as no equipment is required.
5. It is labour intensive as local labourers can be used for installation.
6. It is cost effective and the material is affordable.



After construction

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