



Supporting Partner



5 - 8 DECEMBER 2022
DUBAI WORLD TRADE CENTRE

GEOSYNTHETIC SOLUTIONS FOR IMPROVED ROADS AND INFRASTRUCTURE PROJECTS

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GEOTECHNICAL AND ENGINEERING TALKS
5TH DECEMBER 2022, 11:00am – 11:30am



GEONATPET:



GEONATPET is a leading Geosynthetics producer and supplier with long and very successful presence in the international markets, carrying well known and appreciated brand names.

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GEOSYNTHETICS APPLICATIONS:



The geosynthetics applications extends from sea to the mountain:

- Waterfronts.
- Tunnels.
- Roads.
- Airports.
- Slopes.
- Retaining walls.

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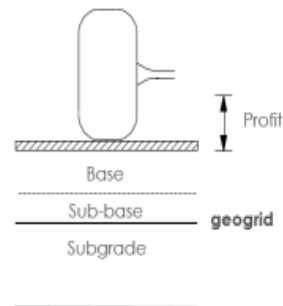
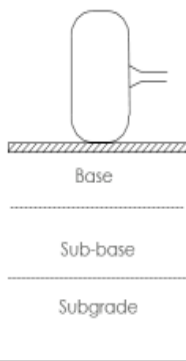
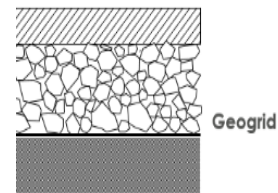
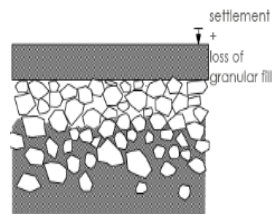
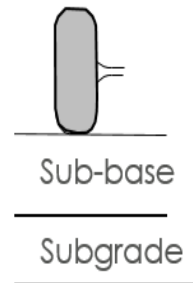
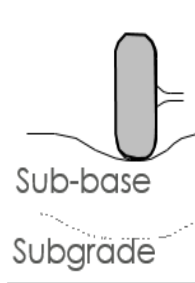
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Road Applications:

Advantages of geosynthetics in roads:

- Reducing the rutting of the road surface.
- Prevents pumping effect.
- Reducing the sub base thickness.



Road Applications

(Embankment):

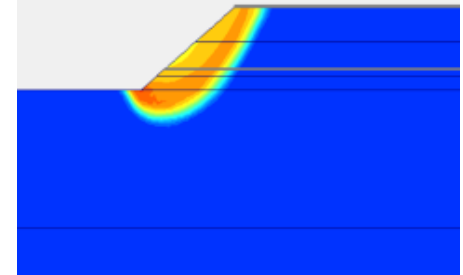
- Sabkah Soil Conditions.
- G.W.T @ -0.50 m below G.L
- Traffic load /20 Kn/sqm.
- Embankment Height = 3m.
- Uniaxial geogrid 200 Kn/m.

Results:

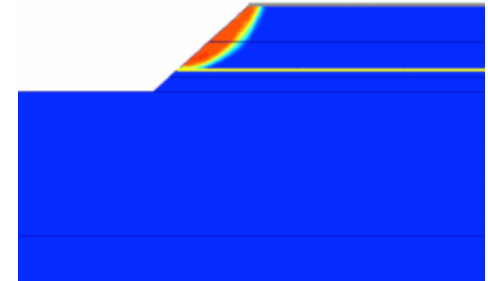
- Increasing the safety factor by 30%.
- Decreasing the project time through speeding the construction process.
- Saving project cost by implementing steeper slopes.

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Factor of safety against sliding:
(FS = 1.217)
Unreinforced with Geogrid



Factor of safety against sliding
(FS = 1.586) Reinforced with
Geogrid



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Road application

Asphalt Reinforcement

- Sealing of the underneath pavement parts. When the non-woven absorb the bitumen emulsion forms an isolation barrier.
- Stopping or delaying the developing of reflective cracks.
- It can work as a stress relief between the solid components by absorbing and redistributing the stresses resulted from variations of temperature and traffic loads.



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