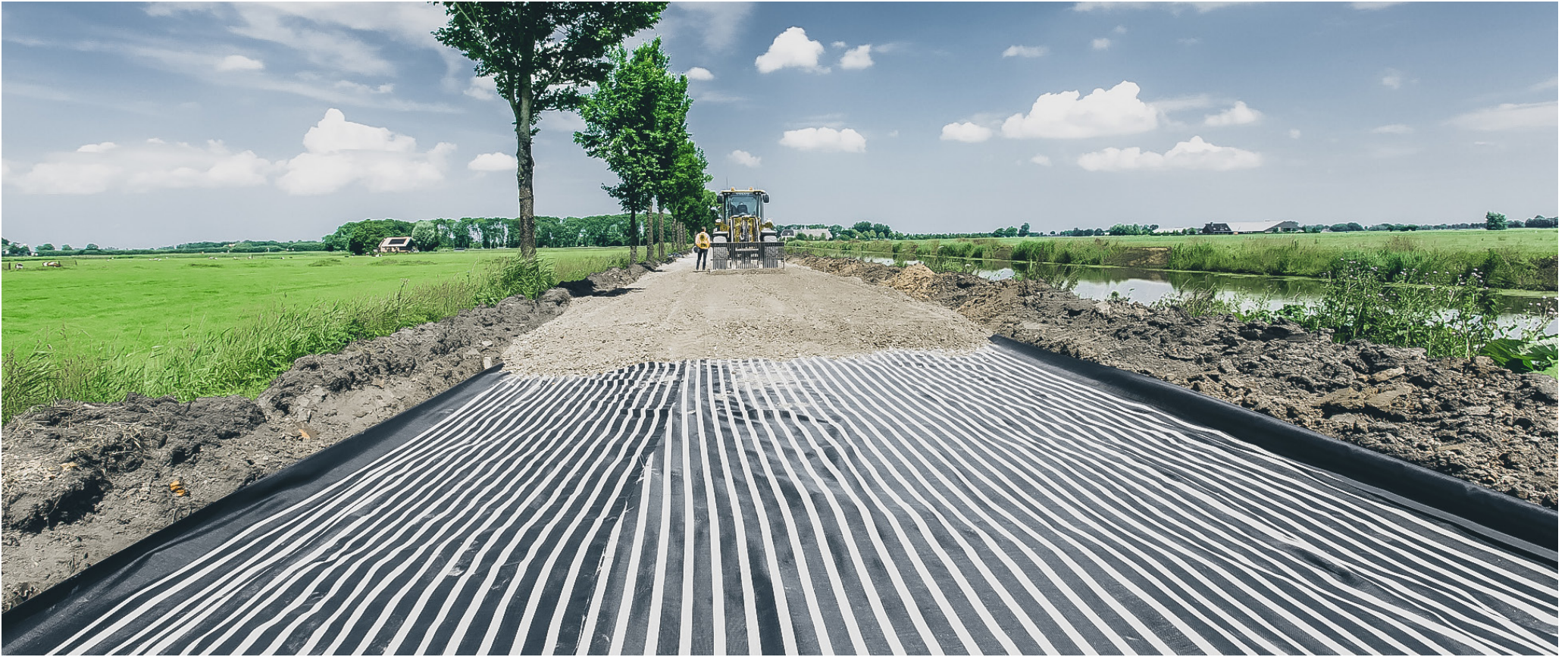


# MIRAFI HMi

Subgrade stabilization





**MIRAFI®** HMi is an innovative geotextile, boasting extraordinary tensile strength at extremely low elongation. It serves multiple functions, offering reinforcement, separation, and filtration.







Constructing sustainable infrastructure requires a robust and long-lasting base that conserves natural resources and energy. **MIRAFI HMi** plays a crucial role in achieving these objectives across various applications in transportation, mining, and energy, particularly for paved and unpaved roads over soft soils.

## ALL IN ONE: ECONOMICAL, SUSTAINABLE, TOP PERFORMANCE

### Economical

**MIRAFI HMi** significantly reduces the thickness of fill required. This reduction is based on the characteristics of the natural soil, the quality of the fill layer, and the loads it needs to support. This leads to notable savings in both material costs and construction efforts.

### Sustainable

Constructing sustainable infrastructure requires a robust and long-lasting base that conserves natural resources and energy. An independent analysis demonstrates that, compared to traditional road construction and stabilization using cement or lime, **MIRAFI HMi** geotextile has an environmental impact lower for all indicators studied, making it a greener choice for infrastructure projects.

### Recyclable

**MIRAFI HMi** is made from 100% polypropylene, which ensures durability and can be easily removed at the end of its lifecycle and sent for recycling. Compared to alternative solutions, **MIRAFI HMi** also facilitates the recovery of aggregate materials more efficiently.



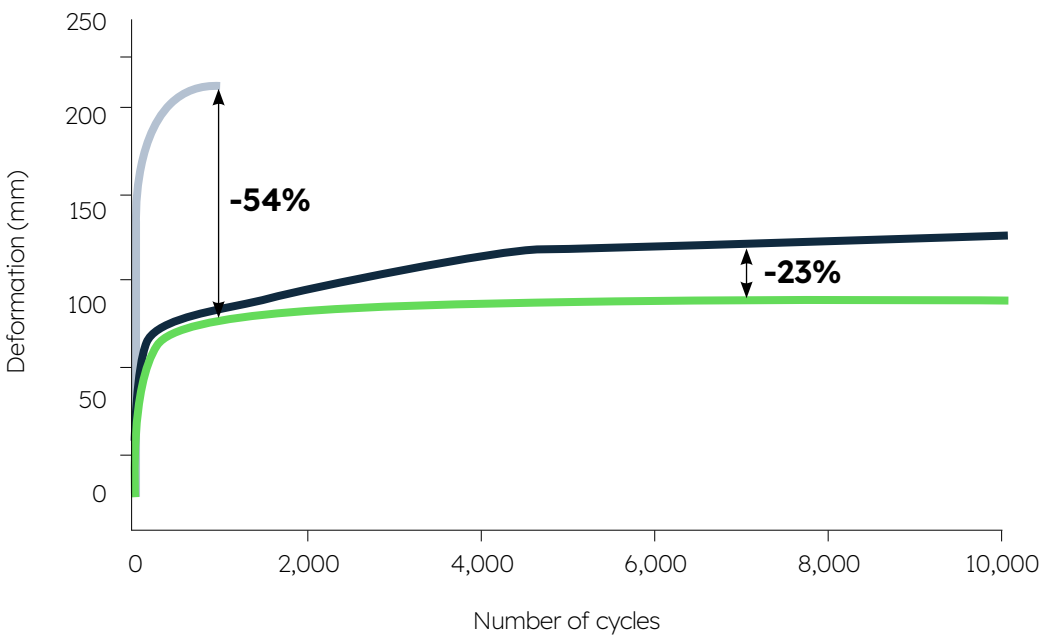
**MIRAFI** HMi enhances the optimal functioning of each mineral layer in a road structure through its efficient performance.



# PROVEN PERFORMANCE

## Advanced material performance test series

**MIRAFI HMi** reduces rut depths and enhances bearing capacity using solutions grounded in laboratory tests and established design methods. This approach optimizes resource use and minimizes environmental impact. With **MIRAFI HMi**, the required thickness of granular material for the same long-term performance is significantly decreased.

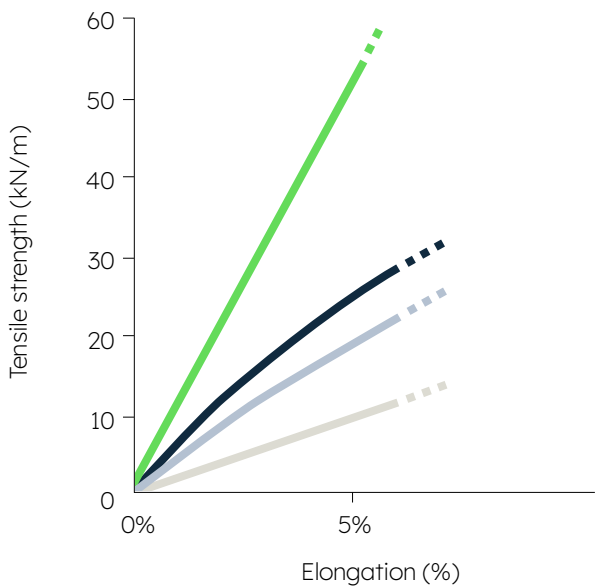


Evolution of settlements vs. cyclic loads

- Unreinforced 30 cm granular layer
- Unreinforced 50 cm granular layer
- Reinforced 30 cm granular layer with **MIRAFI HMi**

## High stiffness

**MIRAFI HMi** is characterized by an extremely high stiffness. A higher strength with a low elongation results in less rutting, deformation, and settlement.



Reinforcement stiffness at low deformation

- MIRAFI HMi**
- Typical biaxial PP extruded geogrid
- Standard PP woven
- Basic triaxial PP extruded geogrid



## Optimized layer thickness

**MIRAFI HMi** reduces rut depths and enhances bearing capacity using solutions grounded in laboratory tests and established design methods. This approach optimizes resource use and minimizes environmental impact. With **MIRAFI HMi**, the required thickness of granular material for the same long-term performance is significantly decreased.

## Separation and filtration

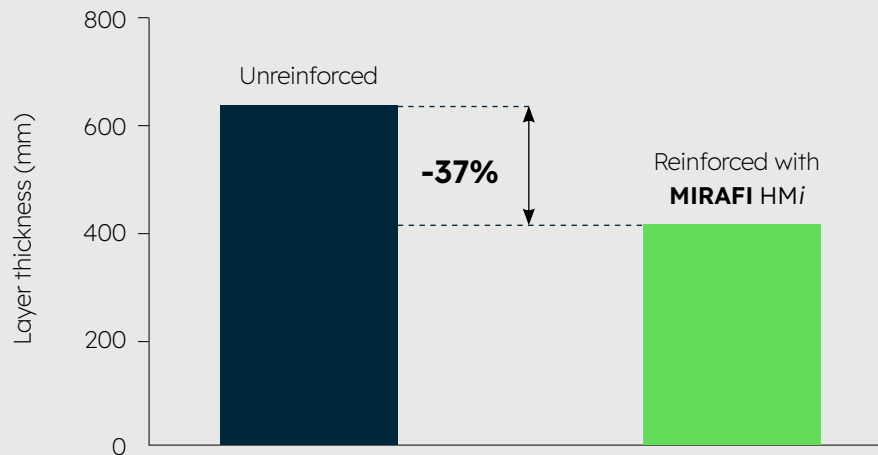
**MIRAFI HMi** prevents different soil layers from mixing and restricts the movement of soil particles while allowing water to drain freely. It provides a permeable granular base and prevents the fill material mixing with the subgrade, preserve the mechanical and friction characteristics, in the short and long term.

## Soil and base course interaction

The soil and base course are well confined, resulting in a greater distribution of loads. The roughness of **MIRAFI HMi** and the full contact with the granular material allow an optimal friction transfer mechanism.

## Durability

**MIRAFI HMi** is a robust product, withstanding damage during installation. It has a high resistance to chemical influences from the environment.



Typical aggregate savings for a standard traffic load on 1% CBR subgrade



## BENEFITS

### Optimum

- Excellent stiffness
- Easy to handle
- Ultimate lifetime extension

### Easy removal after lifetime

- Recyclable, manufactured out of 100% polypropylene

### Optimization

- Minimization of aggregate use, saves natural resources
- Flexibility in aggregate selection; use locally available sand or gravel, saves on transport and reduce CO<sub>2</sub> emissions.



#### **About us**

Solmax is a world leader in sustainable construction solutions, for civil and environmental infrastructure. Its pioneering products separate, contain, filter, drain and reinforce essential applications in a more sustainable way – making the world a better place. The company was founded in 1981, and has grown through the acquisition of GSE, TenCate and Propex. It is now the largest geosynthetics company in the world, empowered by more than 2,000 talented people. Solmax is headquartered in the province of Quebec, Canada, with subsidiaries and operations across the globe.

#### **Uncompromised quality**

Our products are manufactured to strict international quality standards. All our products are tested and verified at our dedicated and comprehensive laboratories which maintain numerous accreditations. We offer our partners a wide scope of testing according to published standards to ensure products delivered to sites meet specified quality requirements.

# Let's build infrastructure better

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