

LIDL PARKING LOT, GERMANY

Building a parking lot over soft soils



Industry: Site development
Sub-industry: Roadways and parking lots
Location: Germany
Product: **MIRAFI® HMi**

The Lidl parking lot project in Teterow, Germany, was an initiative designed to strengthen the base course of a commercial area parking lot. The project utilized **MIRAFI HMi** which played a crucial role in meeting these stringent requirements.

The primary challenge stemmed from the poor quality of the underlying soil and the skepticism from stakeholders about the effectiveness of the **MIRAFI HMi** product under variable weather conditions and logistical complications in material supply. However, drawing on successful precedents from the Netherlands, the project team managed to advocate effectively for its use, which gradually built confidence among the stakeholders.

The project's success was also due to efficient project management, including timely material delivery and proactive coordination. The engineering team's ability to convince stakeholders of the benefits of **MIRAFI HMi** led to its expanded use in other areas of the project. This decision

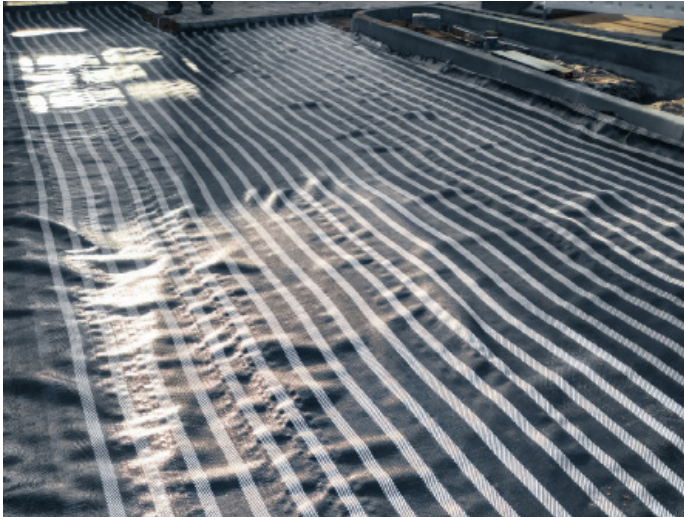
underscored the product's acceptance and the project's overall success, which had a positive impact on the local economy and environmental planning.

The Lidl parking lot project exemplifies how integrating innovative materials like **MIRAFI HMi** can overcome substantial geotechnical challenges. It serves as a valuable case study for engineers and project managers aiming to incorporate sustainable and advanced practices into their projects, contributing significantly to the evolution of the civil engineering field.

MIRAFI HMi played a vital role in this project. Selected for its superior tensile stiffness, it effectively tackled the challenging soil conditions, presenting a cost-efficient alternative to a complete subsoil replacement.

CASE STUDY

Building a parking lot over soft soils



Overview

The Lidl parking lot project aimed at reinforcing the base course to enhance the structural integrity of the commercial area. The engineering team was tasked with achieving a significant base strength, with an EV2 value exceeding 120 MPa (17,404 psi) within a limited construction depth of 30 cm (12 in). Despite a challenging two-week deadline, the project utilized the **MIRAFI HMi** product, showcasing how innovative materials coupled with efficient project management can effectively tackle significant engineering hurdles. The successful completion of the project within such a stringent timeline ensured uninterrupted commercial operations, benefiting not only the contractor but also the local economy and environmental planning. The expanded approval of the product for an additional area of 5,000 m² (53,820 ft²) further underscores the project's success and acceptance.

Challenge

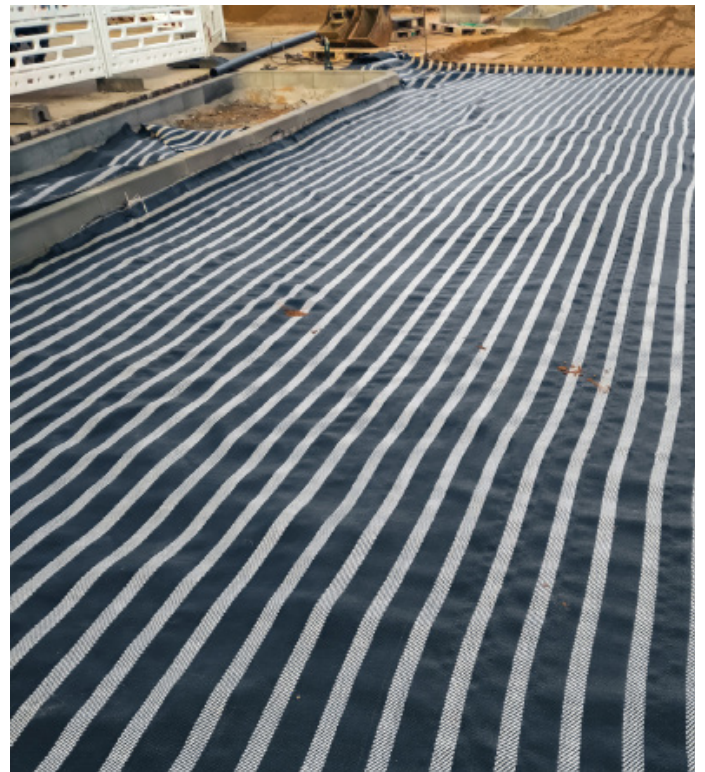
Adhering to the EBGeo guidelines, the project encountered substantial challenges due to the poor quality of the underlying soil. Skepticism from stakeholders was initially high, compounded by the novel use of the **MIRAFI HMi** product under variable weather conditions and logistical hurdles in material supply. Drawing on positive precedents from similar applications in the Netherlands, the project team advocated for the innovative use of **MIRAFI HMi**, gradually gaining stakeholder confidence. This approach not only addressed the immediate challenges but also paved the way for future advancements in civil engineering design and installation techniques.

Solution

MIRAFI HMi played a vital role in this project. Selected for its superior tensile stiffness, it effectively tackled the challenging soil conditions, presenting a cost-efficient alternative to a complete floor replacement.

The implementation of **MIRAFI HMi** met the project's stringent requirements, improving soil stability and durability, and setting a new benchmark for future geotechnical applications. The project also served as an educational example of innovative thinking and strategic problem-solving within civil engineering, demonstrating the integration of sustainable practices in commercial projects to meet specific engineering needs.

The project's timely completion was facilitated by efficient material delivery and proactive project management. With the engineering office fully convinced of the product's benefits, the decision to extend the use of **MIRAFI HMi** to the remaining parts of the project highlighted Solmax's ability to deliver solutions under tight deadlines and challenging conditions. The project not only exemplifies the use of innovative materials in overcoming geotechnical challenges but also reflects the broader potential for such technologies in enhancing commercial infrastructure.



Solmax is not a design or engineering professional and has not performed any such design services to determine if Solmax's goods comply with any project plans or specifications, or with the application or use of Solmax's goods to any particular system, project, purpose, installation, or specification.

Products mentioned are registered trademarks of Solmax in many countries of the world.