



GRÜNER SEE - SCHMIEDEWALDE, GERMANY

Slope Stability

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Project	Grüner See - Schmiedewalde
Location	Klipphausen/Schmiedewalde, Kreis Meissen
Country	Germany
Year of installation	2016
Customer	Saxon Superior Mining Agency, Freiberg
Contractor	Bergsicherung Freital GmbH

Initial situation

In the early days of its existence, Schmiedewalde, a small village that neighbours Dresden, was home to a chalk mine that was commercially excavated. Over time, the excavation left a hole that has long since flooded and become known locally as Grüner See (Green Lake). After a heavy rainfall in 2013, one slope of the former surface mine slipped and became severely unstable. A rural road just north of the lake was ruled impassable and required slope stabilization to again be considered safe for passage. The Saxon Superior Mining Agency invited the engineering firm Eckert to develop a permanent solution thereby reassuring the safety of the traffic infrastructure.

Description

Approximately 50 m of the slope was stabilized from an average height of 10 m (vertical extension). The high-tensile TECCO® GREEN G65/3 mesh was anchored to the slope with approximately 130 soil nails. The soil nails range in length from 3.0 m to 6.0 m and were arranged in a grid pattern of 2.0 m x 2.5 m. TECCO® GREEN G65/3 consists of combination of a high-tensile steel mesh combined with an erosion control mat. While the TECCO® mesh assures full stabilization of the instable soil the polypropylene (PP) mat serves as grip and substrate for hydroseeding. The solution also provides protection against damage caused by rodents such as beavers.

[Datasheet](#) TECCO® GREEN

Protected object	Road
Corrosion protection	GEOBRUGG SUPERCOATING
Geology	Substrate: cohesive artificial infills dating from the times of commercial depletion.
Stabilized area	500 m ²
Maximum slope height	10 m
Slope inclination	50 ° - 70 °
Greening	Yes
Exposition	South-West

For questions please contact our Geobrugg specialist at your side

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