

Drilled piles

Optimization of stability under load, prevention of slipping

The challenge

The construction project comprises all work to complete the structural work at the underground station Museumsinsel with the underground tunnels Museumsinsel Ost (MUI-Ost) and West (MUI-West). The main construction pits of the tunnels are sealed vertically by slurry walls and horizontally by a deep sealing base. For temporary reinforcement of the shoring walls (slurry walls) both tunnels have a water-permeable reinforcement base. The reinforcement soles planned in the jet grouting method are partly replaced by overlapping, unreinforced load-bearing elements, which are produced vertically by means of large-hole drilling. At the height of the reinforcement base, the drilled holes are filled with liquid soil in accordance with the requirements of the RAL Quality Mark 507.



Backfilling of drilled piles with RSS® Flüssigboden



Properties of RSS® Flüssigboden

- mechanically comparable with the surrounding soil, removable
- vibration damping when exposed to dynamic loads
- settlement-free and self-compacting
- quickly resistant to loads
- backfilling and bedding quality for long-lasting networks,
- self-compacting and therefore no vibrations occur
- short-term construction site with fast construction progress
- minimised excavation masses
- pumpable
- suitable for placement using the tremie method



Construction project

Project: Berlin, U5
Section: Main construction pit Museumsinsel West of the 1st construction phase

Builder

Berlin public transport (BVG)

Construction works

Bilfinger Construction GmbH

Construction period

2013

(Partial) technical planning

LOGIC Logistic Engineering GmbH