SIKA AT WORK

NEW CONSTRUCTION OF A DRINKING WATER RESERVOIR IN GÖNHARD, AARAU, SWITZERLAND

WATERPROOFING:	Sika®-110 HD
CONCRETE PRODUCTION:	Sika ViscoCrete®-20 Easy
CONCRETE PROTECTION:	Sika MonoTop®-910 N, SikaTop®-122 SP

BUILDING TRUST

DRINKING WATER RESERVOIR IN AARAU

PROJECT DESCRIPTION

In 2014, as part of a "General Water Supply Project (GWP)," the current condition of the Aarau water supply infrastructure was analyzed, and future needs for the region were identified. It was confirmed that the Gönhard (1941), Oberholz I (1899), and Oberholz II (1916) reservoirs are in need of renovation. Additionally, it was found that the storage volume is insufficient to meet the long-term water demand.

A PROJECT OF A CENTURY

As a result of these findings, Eniwa AG Buchs developed a new reservoir concept. This involves replacing the Gönhard water reservoir and decommissioning the Oberholz I and II reservoirs upon the new reservoir's completion. The new water reservoir is a project of a century built for future generations and typically lasts 80 to 100 years.

MEANINGFUL AND NECESSARY INVESTMENT

Eniwa AG Buchs supplies untreated drinking water to Aarau, Küttigen, Unterentfelden, Wöschnau, and Erlinsbach AG. Since April 1, 2016, Schönenwerd, Gretzenbach, and Eppenberg have also been supplied for a limited period of about four years. In emergencies, Oberentfelden, Suhr, and Buchs could also be supplied.

SUPPLY SECURITY

The increased storage capacity ensures long-term supply security for healthy drinking water in the Aarau region. Integrating the relatively small Oberholz reservoirs into a central water storage enhances efficiency. The project ensures a long-term-thinking, sustainable approach to the natural resource of water.

PROJECT EXECUTION

Construction of the new transport pipeline for the new reservoir began in 2017. The construction of one of the largest drinking water reservoirs in the canton of Aargau started in the summer of 2017. The completion and the operation are expected in the spring of 2020.

PROJECT REQUIREMENTS/CHALLENGES

- Drinking water tested coating according to DVGW W270 and W347
- Waterproof, hygienic, smooth, and easy-to-clean coating
- Large-area coating of walls, up to 7.00 m high

SIKA SOLLUTION

As the result of the close cooperation among the client, engineering firm, contractor and Sika technical consultant, a sustainable and durable solution was found to meet all requirements based on the broad Sika product range. The reservoir walls were coated with Sika®-110 HD sealing mortar using the two-layer wet spray method. The installation was efficient and optimized with the Variojet 2.0 pump. Pillar coating was manually applied in a two-layer buildup. Sloped floor areas were also applied with the pump. To ensure efficient installation, the second layer of Sika®-110 HD sealing mortar had Sika® ViscoCrete®-20 Easy admixture to improve the workability, so that it can be applied with a spiked roller, eliminating the need for surface smoothing with a trowel.

SIKA PRODUCTS

- Sika®-110 HD
- Sika® ViscoCrete®-20 Easy
- Sika MonoTop®-910 N
- SikaTop®-122 SP

PROJECT PARTICIPANTS

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