References

Weholite tanks have multiple uses



Uponor involvement

- 1 Weholite alkalisation tank of 30 cubic metre and pumping station of 100 cubic metre

Weholite tanks have multiple uses

A Weholite alkalization plant was installed alongside new groundwater intake facility in Kuhmo, Finland. The system is built in the factory, ready for installation.
Durable and light Weholite tanks are easy to handle and can be sized and equipped for various purposes. Weholite is used for manufacturing products such as potable water, firewater, stormwater and chemical tanks, alkalisation plants, retention tanks, and separators. Weholite alkalisation plants use limestone, which guarantees an even and safe result.

Project Facts:

Location	Completion
Kuhmo, Finland	2014
Building Type	Product systems
Municipal	Tailor made constructions
Project Type	
New building	

With their layered construction, Weholite pipes are durable, flexible and light. They are manufactured from PE or PP profile using spiral seams. Thanks to the structure of the Weholite pipe material, tanks can be built with a diameter of over three metres.

Weholite can be used for manufacturing complete pipe and tank systems and highly versatile customised solutions. ”When used in tanks, Weholite is durable, watertight, light and hygienic,” emphasises Anders Andtbacka, product manager at Uponor Infra. Weholite is used for manufacturing products such as potable water, chemical, stormwater and alkalisation tanks. The tanks are always customised to meet the customer’s needs.

''There is no risk of corrosion in the case of a plastic tank, which can withstand almost all chemicals.'' In addition, Weholite tanks are often delivered for industrial use.

Nothing from the tanks themselves dissolves into whatever the tank contains, or into the environment. Andtbacka points out that the other benefits of Weholite include fast and easy installation and commissioning. Weholite is light to handle, which speeds up the installation and commissioning of a tank. ''The system is built in the factory, ready for installation. This significantly reduces the amount of work and time spent at the installation site.''

Clean water in all conditions

A new groundwater intake facility is being built in Kuhmo, which is located in Eastern Finland near the Russian border. A Weholite alkalisation plant, including a pumping station, will be installed alongside the facility. In Kuhmo, this project is regarded as a key investment for the future.

The project also includes the construction of a potable water pipeline and transfer sewer line to the centre of Kuhmo, around ten kilometres from the new water intake facility. According to project engineer Timo Piirainen from the City of Kuhmo's water services, the project is above all an investment for the future. The objective was to ensure that people in Kuhmo could be provided with high-quality potable water under all circumstances. ''During the torrential rain of August 2012, surface water leaked into our main water supply facility, leading to a deterioration in water quality, and we had to take exceptional measures to continue our water supply. Similar and other risks related to water supply are also faced by our two facilities located near the centre.'' The new water supply facility is located in an unbuilt and unditched ridge area, where there is no such risk.

It is estimated that the new facility will be able to deliver 500 cubic metres of water per day. This amounts to almost half of the water supply required by central Kuhmo.

''Another important issue is that the new water supply facility provides alkalised water ready for use. The water can be distributed directly.''

Safe and quick installation

In Kuhmo, the preferred solution was a Weholite alkalisation plant and a pumping station.

''A concrete tank cast on site would be a more labourintensive and time-consuming option. Due to concrete construction, the excavations would also have remained open for longer. This would have increased the risk posed to groundwater quality during construction on the site. We came close to reaching groundwater level at the construction site.'' ''An alkalisation plant of 30 cubic metres and a pumping station of 100 cubic metres were rapidly installed. The tanks were in place within a couple of days.'' The citizens of Kuhmo have no previous experience of Weholite tanks, but have closely followed feedback from elsewhere.

''The tanks are already used a great deal. The alkalisation results and user experiences have been good,'' Piirainen says. ''Water quality is our top priority. We don't want to take any chances with water quality. That's something we always take into consideration when selecting partners,'' Piirainen emphasises.

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