

Mid-Halton Wastewater Treatment Plant

Oakville, ON, Canada (2016)

PRODUCTS USED:

Krytol T1® Krytol T2®

OWNER/DEVELOPER:

Region of Halton

ENGINEER:

MMM Group

GENERAL CONTRACTOR:

Maple Reinders Constructors Ltd.

APPLICATOR:

Aquanorth Contracting Ltd.

DISTRIBUTOR:

Form & Build Supply

BACKGROUND

The Halton region is expecting to grow to over 753,000 people by 2031. In preparation for this population boom, the regional government started an expansion and modernization project for their aging wastewater network at the Mid-Halton Wastewater Treatment Plant. During the planning of the project, the engineers found that the hydrostatic pressure from groundwater was extremely high around the area where the wastewater tanks were planned to be stationed. With that in mind, the construction team knew they would need a permanent and high-performing concrete waterproofing system to ensure there would be no cross-contamination between groundwater and wastewater.

SOLUTION

Ultimately, the construction team chose to use Kryton's Krytol® technology products because of their permanent waterproofing and ability to stop water even under high hydrostatic pressure.

To waterproof the inside of the tanks, the team applied Krytol T1 and Krytol T2 to the tanks' concrete walls, protecting them from any form of water intrusion. That was made possible due to the two solutions' use of Krytol technology, which chemically reacts with water and unhydrated cement particles to form insoluble needle-shaped crystals. These crystals then fill capillary pores and micro-cracks in the concrete to block the pathways for water and waterborne contaminants. This ability lies dormant indefinitely within the concrete. So if a new crack should form in the concrete and water begins to penetrate its surface, the Krytol technology will once again react to seal the leaking location, giving the repair and the concrete itself a self-sealing ability and ensuring the project will have permanent waterproofing.

