



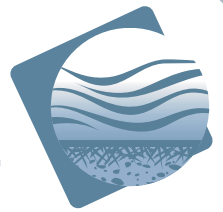
*At the Lab. In the Field.
By Your Side.*

KRYSTOL™ CONCRETE WATERPROOFING SYSTEM

Water Containment, Reservoirs, Treatment Tanks

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QUESTIONS: 1-800-267-8280 or www.kryton.com



**CONCRETE
WATERPROOFING**

PROJECT CASE STUDY

Leakage and contamination are the most common causes of service interruption in facilities such as wastewater treatment plants, drinking water tanks or reservoirs. The best way to protect concrete tanked structures like these from leakage and waterborne contaminants is with effective waterproofing.

In the past, concrete tanked structures were waterproofed using external membrane systems. However, these systems present a number of challenges -- they are expensive and time-consuming to install, they increase construction time and costs and they eventually deteriorate, leaving structures unprotected.

Kryton International's Krystol™ Concrete Waterproofing System overcomes many of these problems. Based on Kryton's proprietary Krystol™ technology that transforms porous concrete into an impermeable barrier, the system includes:

- Krystol™ Internal Membrane (or KIM™), an admixture for new concrete construction
- Krystol™ T1/T2, a surface-applied system for repairing & waterproofing existing concrete structures, and
- The Krystol™ Waterstop System to protect and waterproof concrete construction joints.

When added to a concrete mixture or applied to existing concrete, Krystol™ creates a chemical reaction that causes needle-like crystals to grow, filling the spaces between concrete particles and permanently blocking the movement of water in all directions. If hairline cracks later form in the concrete, incoming water causes additional crystals to grow, self-sealing the cracks and stopping the migration of water.

By blocking water penetration, Krystol™ halts the migration of waterborne contaminants, protecting steel reinforcements from corrosion and safeguarding the purity of potable water. Certified non-toxic by NSF International, a well-known third-party organization that develops national standards for food, indoor air, the environment and water, Krystol™ is safe for use in facilities where potable water is stored.

Here are some recent examples of how the Krystol™ Concrete Waterproofing System has been used to protect water containment and treatment facilities:



Seletar Water Reclamation Plant

Seletar Water Reclamation Plant: Singapore

The Seletar Water Reclamation Plant processes nearly 250,000 m³ of wastewater from the city's sewers each day, using reverse osmosis to create high quality water that can be used by industry to conserve potable (drinking) water. When the plant added a post-tension concrete containment tank, it needed a waterproofing system that would prevent the corrosion and deterioration of the steel cables used in post-tension construction. The project team chose Kryton's Krystol™ Internal Membrane (KIM™) because it provides lifelong waterproofing and corrosion protection properties, is safe for contact with potable water, and could be used within the project's tight, 30-hour timeframe.

The Kryton Group of Companies.

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Tree People Center

Tree People Center for Community Forestry: Los Angeles, California, USA

The TreePeople Center for Community Forestry is a state-of-the-art environmental education campus in California's Coldwater Canyon Park. The center features a 250,000-gallon underground concrete cistern (the largest in the continental U.S.) that captures rainwater to irrigate the center's gardens and forests.

Since the cistern is covered with landscaping, access for maintenance and repairs is near impossible and leaks or cracks would be difficult to detect and correct. Because conventional waterproofing membranes deteriorate over time, the center's owners opted to use Kryton's Krystol™ Internal Membrane (KIM™) and the Krystol™ Waterstop System. Krystol's ability to self-seal small cracks will eliminate the hassles of maintenance and repair, and provide worry-free waterproofing for the life of the cistern. -

Al Falak Building: Dammam, Saudi Arabia

When investigating waterproofing options for this residential/commercial building and underground drinking water tank, the project team needed a system that was cost-effective, low-maintenance and able to protect the structure and steel reinforcements from the excessive levels of sulphates and chlorides in the local soil. The system needed to be non-toxic and to prevent the migration of soil and waterborne contaminants into the drinking water tank.

After investigating various waterproofing options, the project team chose the Krystol™ Concrete Waterproofing System because it provides superior, non-toxic waterproofing and corrosion protection at a highly affordable price. In hot climates, KIM™ also helps to cool concrete and slow the setting time, creating stronger concrete and reducing likelihood of shrinkage and cracking. And unlike external membrane systems that can become brittle and deteriorate, the Krystol™ system is



Al Falak Building



Annacis Island Wastewater Plant

Annacis Island Wastewater Plant: Vancouver, B.C., Canada

When the Annacis Island Wastewater Plant upgraded its largest treatment plant from primary to secondary treatment, the facility needed to build new concrete as well as improve the existing concrete infrastructure. With the deepest parts of the facility located three stories below the local water table, effective waterproofing was vital. The plant opted to use the Krystol™ Concrete Waterproofing System because of its guaranteed long life and ability to self-seal small cracks. In fact, when cracking later occurred due to excessive loading from above, the Krystol-treated concrete reacted with incoming water to immediately seal the cracks and prevent leakage.