



# Leaks in Wastewater Treatment Plant Sealed to Prevent Environmental Contamination

Aging infrastructure is a common problem in municipalities across North America. Wastewater treatment tanks with leaking cracks are a particularly serious problem because the result is often environmental contamination. Administrators at a wastewater treatment plant in New York City contracted LJS Waterproofing to repair 39 leaking concrete tanks. An experienced LJS crew arrived on the scene shortly thereafter, ready to take on this critical threat to the environment.

### Powerful Polymers

The LJS crew injected Spetec PUR F400 to seal the leaking cracks. This material is a solvent and phthalate-free, water-reactive, hydrophobic, closed-cell, low viscosity, shrink-free, flexible, one-component polyurethane injection resin designed to shut off water leaks.



Flushing a Drill Hole

### Physical Properties - Uncured - (appearance white liquid)

SPETEC PUR F400		
Viscosity at 77°F (25°C)	(ASTM D4878-98)	±340cps (±0.34 Pa·s)
Flash Point	(ASTM D1310-86)	>302°F (>150°C)
Density	(ASTM D3505-96 [2000])	1.067 ± 0.005 oz/ft <sup>3</sup> (1.068 ± 5.006 g/m <sup>3</sup> )

### Physical Properties - Cured

SPETEC PUR F400		
Tensile Strength	(ASTM D3574-03)	290psi (20 bar)
Elongation at break	-	±100%

Properties will vary depending on application conditions.

### **Painless Procedure**

Concrete crack injection with polyurethane resin is a five-step process:

1. Drill the injection holes.
2. Flush debris out of the holes with water.
3. Install the injection port.
4. Flush the crack with water.
5. Inject the resin.

### **Rapid Result**

LJS Waterproofing sealed every leaking crack in all 39 concrete tanks, preventing any future wastewater from leaking into the surrounding environment. The administrators at the New York City wastewater treatment plant were extremely happy with the results.

### **About Alchatek**

Alchatek is an international leader in the manufacture and supply of chemical grouts and construction products for Geotechnical, Leak Seal, and Seawall Repair applications. Providing solutions from its headquarters in Tucker, Georgia and its manufacturing facility in Reno, Nevada, Alchatek specializes in advanced construction technologies for sealing leaks, stabilizing soils, lifting concrete, and protecting infrastructure and seawall structures. To best serve its customers, Alchatek is organized onto three divisions:

**The Leak Seal Division** combines a full system offering of polymer chemical grouts and equipment with perhaps the most experienced technical team in the industry. It specializes in preventing water ingress through concrete infrastructure including parking garages, culverts, basements and foundations, and sewer manholes.

**The Geotechnical Division** offers a complete line of single component products for soil stabilization as well as two component polyurethane foams for concrete lifting, void filling, and stabilization of infrastructure. This includes lifting sunken structures such as warehouse floors, back into place.

**Seawall Repair Network®** is the only national network of certified contractors in the repair, preservation, and protection of Seawalls waterfront barriers. Its proprietary methods and materials are environmentally friendly and safe for use in all marine environments and provide a non-destructive solution for seawall repair at 80% less than the cost of replacement.

Tech Support:  
404-618-0438  
[www.Alchatek.com](http://www.Alchatek.com)

This information is provided in good faith, but without guarantee. The application, use and processing of the products are beyond our control and therefore your entire responsibility. Should Alchatek nevertheless be held liable for any damage, such liability will be limited to the value of the goods delivered by us. We are committed to providing high-quality goods at all times. This version supersedes all previous versions. Revision Date: April 26, 2023 4:55 PM