



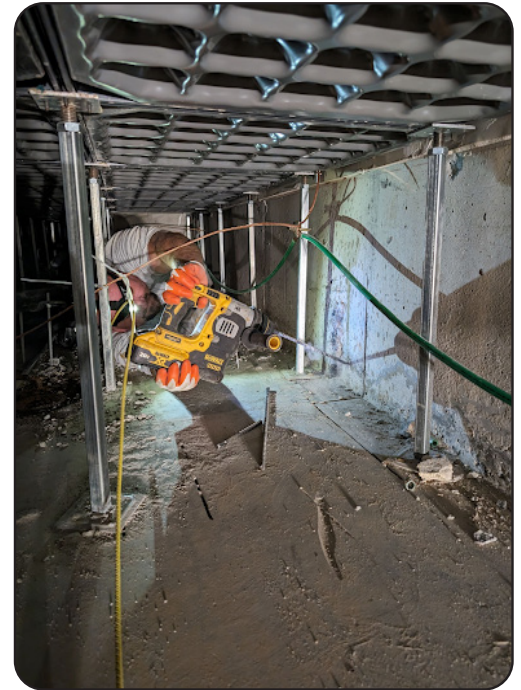
CASE STUDY LEAK SEAL

Sealing a Telecom Data Center Water Leak

A broadband provider in Alpharetta, Georgia, contacted a local leak seal contractor after discovering water infiltration through a crawl space wall during heavy rainstorms. Over time, cracks had developed, allowing not only water but also sediment to enter, creating substantial voids outside the fissures upon inspection. Given the sensitivity and high value of the equipment housed within the facility, eliminating all potential leaks in the crawl space became a top priority.

Powerful Polymers

The technicians chose Alchatek's Spetec PUR HighFoamer to address this leak. This highly expansive polyurethane grout creates a robust, waterproof barrier, effectively sealing a wide variety of leaks without extensive excavation. Spetec PUR HighFoamer's remarkable expansion capacity (40x-50x) ensures comprehensive coverage and a tight seal, making it ideal for projects requiring minimal downtime. Its NSF 61 certification guarantees safety for potable water applications, positioning this product as a versatile and cost-effective choice for leak sealing projects across various industries.



Physical Properties - Uncured - (appearance brown liquid)

SPETEC PUR HighFoamer		
Viscosity at 77°F (25°C)	(ASTM D4878-98)	± 75 cP (± 75 mPa.s)
Flash point	(ASTM D1310-86)	313°F (156°C)
Density	(ASTM D3505-96 [2000])	± 65.5 lbs/ft³ (± 1.05 kg/dm³)

Physical Properties - Cured

SPETEC PUR HighFoamer		
Tensile Strength	(ASTM D-1623)	43psi (2965 mb)
Tensile Elongation	(ASTM D-1623)	3.8%
Shrinkage	(ASTM D-1042/D-756)	Negligible
Compressive Strength (with Fine Sand)	(ASTM C-39)	1803 psi (124313 mb)

Properties will vary depending on application conditions.

Painless Procedures

The repair process consisted of three efficient steps. First, the crew drilled through the concrete wall, installing zerk fittings into each hole for subsequent injections. Next, they used an electric airless sprayer to inject water into each fitting, ensuring proper activation of the foam. Finally, they injected Spetec PUR HighFoamer through these fittings. This created a curtain wall of polyurethane foam that effectively sealed the cracks, prevented further water ingress, and filled voids in the soil substrate.

Rapid Results

Within 24 hours, the technicians successfully sealed all leaks in the underlying crawl space. This injection process was completed in a fraction of the time required for a full membrane replacement. Months after the repair, following several heavy rainstorms, the facility manager confirmed that the crawl space has remained completely dry, with no recurrence of leaks.

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

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: July 12, 2024 12:36 PM