



CASE STUDY
VOID FILL

Pool House Foundation Void Fill

Geotech specialists were called into a job by a general contractor in Atlanta. A property owner was restoring a very interesting pool house in an upscale neighborhood. The pool actually sits atop and in the center of the pool house itself. During the initial restoration process, they discovered voids under the pool house foundation.

Powerful Polymers

The crew recommended Alchemy-Spetec’s AP Lift 475, a two-component, hydrophobic, structural lifting polymer designed for airport, highway, and railroad applications. It can be used to stabilize structures, fill voids, and lift slabs supporting tremendous loads. The real beauty of this material is its ability to be traffic ready in less than one hour.



Physical Properties - Cured

AP LIFT 475			
Compressive Strength	(ASTM D-1621)	100 p.s.i. or 14,000 p.s.f.	6,895 millibar
Tensile Strength	(ASTM D-638)	100 p.s.i	6,895 millibar
Expansion	(Unconfined)	14-16 times	-
Density	(ASTM-D 1622)	4.5 to 5.0 lb/ft3	72.08 to 80.09 kg/m3
Shrinkage	(ASTM D-1042/D-756)	Negligible	Negligible

Properties will vary depending on application conditions.



Painless Procedure

The technicians used Alchemy-Spetec's compact PolyBadger pump system for this job since the location was not easily accessible with a slab lifting rig. The PolyBadger is a tough and compact mobile cart system for pumping polyurethane resin. Using this pump, the crew was able to fill the voids at a relatively quick pace.

Rapid Result

The technicians were out of the way and the restoration contractor was able to start backfilling the area in a few short hours.

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:
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