



Stabilizing Student Housing

A geotech contractor was called in for a highly urgent remedial project at a university apartment building. A plumbing break quickly evolved into a bigger issue than just fixing some pipes. The breach resulted in large voids under the foundation slab that compromised the integrity of the entire structure. The contractor answered the call and was immediately up to the challenge.

Powerful Polymers

Alchemy-Spetec's AP Lift 430 was chosen for the job due to its high density, high expansion rate, high yield, and cure strength. This two-component, high-strength, high-density, hydro-insensitive structural polyurethane foam is ideal for void fill and structural stabilization and void fill in situations like the one described above. AP Lift 430 weighs 2.75 – 3.25 pounds per cubic foot.



Physical Properties - Cured

AP LIFT 430			
Compressive Strength	(ASTM D-1621)	50 p.s.i. or 7,200 p.s.f.	3,447 millibar
Tensile Strength	(ASTM D-638)	88 p.s.i.	6,067 millibar
Expansion	(Unconfined)	22-26 times	-
Density	(ASTM-D 1622)	2.75 to 3.25 lb/ft3	44.05 to 52.06 kg/m3

Properties will vary depending on application conditions.

Painless Procedure

The structural polymer was injected through the slab to fill the voids and compact any compromised soil.

Rapid Result

The project was completed in a half day while most of the occupants were in class. The GC was ecstatic to have this emergency resolved quickly and painlessly.

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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