



Contractor Successfully Completes Unique & Challenging Driveway Lift

A homeowner called a slab lift contractor in Tennessee with an interesting driveway problem. There was an 8-inch drop at the point where the driveway met the edge of the garage floor. That was enough to prevent the resident from getting their car into the garage at all. The homebuilders did not extend a nearby gutter downspout far enough away from the driveway. Rainwater caused erosion under the slabs, causing them to sink over time. What made this case unique was the fact that the final slab (closest to the garage) in this 20-foot-wide driveway was only two feet long. Slabs with such narrow dimensions are notoriously difficult to lift evenly.

Powerful Polymers

The slab lift crew used AP Lift 430, a two-component, high strength, high density, hydro-insensitive structural polyurethane foam. They chose AP Lift 430 because it's one of the most consistently reliable lifting foams in the industry. This high-density foam is extremely strong, providing concrete slabs and structures with reliable and lasting support.



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 crew drilled their first injection hole about 3 feet from one edge of the slab, right in the middle of the 2-foot length (about 1 foot in from both edges). They lifted this end of the slab for about 2 inches and then stopped. Lifting any further at this point would likely have cracked the slab. Next, they drilled another hole about 6 feet in from the edge and repeated the process. When they reached the end of the 20 feet, they started again – redrilling that first hole and lifting another 2 inches. With this gradual injection process, they carefully raised the slab 8 inches and leveled it off with the garage floor. They then moved on to lift the other, conventionally sized slabs in the rest of the driveway.

Rapid Result

This challenging slab lift job was completed in just 3 hours. Fifteen minutes after the injections were completed, the homeowner was able to drive their car across the newly leveled driveway and into the garage.

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

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