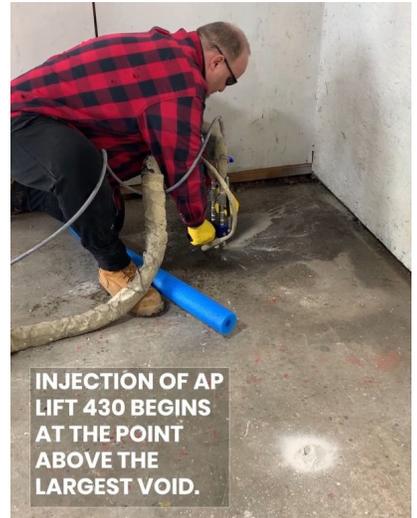


**POWERFUL POLYMERS
PAINLESS PROCEDURES
RAPID RESULTS**

Leveling Sunken Slabs in a Pole Barn

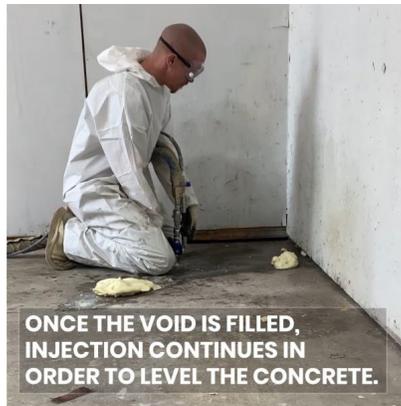
A 25' x 40' residential pole barn in Carbondale, Illinois was built on a 6" floating concrete slab on grade. The concrete was poured into four 10'x 25' sections. Each section had multiple cracks and breaks throughout, and in some cases the broken sections had a drop of up to 3". ETRU Spray Foam and Coatings was hired to stabilize the ground and level as much of the concrete as they could. During the inspection, it was discovered that the pole barn 4 corner beams were driven into the ground and the concrete poured around them. The front of the property was pitched towards the pole barn and it showed no signs of ever having gutters and downspouts attached. After drilling an injection hole, the crew inserted a probe to check the depth of the void and the stability of the ground. In some areas the void was 6" and the probe was hand driven to a depth of 3' before hitting hard ground. The homeowner planned to utilize the space as a game room.



INJECTION OF AP LIFT 430 BEGINS AT THE POINT ABOVE THE LARGEST VOID.

POWERFUL POLYMER

Among the most dependable products for geotech applications, AP Lift 430 structural foam provides an exceptional DOT grade solution for these types of situations. This 3 lb. density, high-strength, hydro-insensitive structural polyurethane foam is perfect for densifying soil and lifting concrete slabs.



ONCE THE VOID IS FILLED, INJECTION CONTINUES IN ORDER TO LEVEL THE CONCRETE.



THE DIAL INDICATOR MEASURES SLAB LIFT MOVEMENT BY 1/10 OF AN INCH.

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 ETRU crew and an Alchemy-Spetec consultant walked the project with the property owners. We pointed out how waterlogged the ground was and that they needed to add gutters and downspouts, as well as pitch the ground water away from the pole barn. We also talked about possible blowout from under the slab during the injection process and how to handle it. The Alchemy-Spetec consultant worked with ETRU to draw up a plan, indicating exactly where the injection points would be located (knowing that the plan might change due to the ground moisture and the number of voids to be filled). All injections were completed from inside the pole barn with a crew member on the outside to alert the others when product broke through the ground. First, they injected in the back corner which had the 3" drop. The plan was to establish a base slab height on the side with the most soil problems and then level everything else to that slab. Spacing between injection points was approximately 3-4 feet, with 38 total injection locations.

RAPID RESULT

The ETRU Spray Foam and Coatings crew achieved a three-inch lift and was able to bring all the other slabs within 1/8" from the adjoining slab. The customer was extremely happy with the results.

About Alchemy-Spetec

The Leak Seal Division

The Alchemy-Spetec Leak Seal Product Line combines a full-system offering of polymer chemical grouts and equipment with perhaps the most experienced technical team in the industry. For any concrete leak seal application, lean on the Alchemy-Spetec team for phone, field, or engineering support. Our growing network of Regional Managers, Independent Representation, and Nationwide Distribution offers industry professionals many levels of opportunity worth discussing with our team. Consultants at Alchemy-Spetec pride themselves on rapid, powerful, and painless scheduling of field and technical support. We invite you to inquire about our bi-annual factory training held at the Tucker, GA-based manufacturing facility where they can learn from the 20+ year average industry experience of our Regional Management and Technical Team.

The Geotech Division

The Alchemy-Spetec Geotech Product Line offers industry-leading quality, full chemical grout lifting rig training and support, and unmatched contractor support in the field and with sales and marketing. Contact us today to learn about the tangible benefits of joining the Alchemy-Spetec network of geotech contractors. The Alchemy-Spetec MixMaster Pro Gun is a maintenance and production cost-saver for any lifting contractor, while the flagship lifting foams have helped many contractors reduce volume usage while eliminating call-backs. From the Polybadger machine that fits into a pickup truck, to custom boxtruck and trailer rig buildouts, Alchemy-Spetec is widely considered the premier geotechnical chemical grout & equipment supplier. With the additions of ground penetrating radar and penetrometer equipment and support, Alchemy-Spetec is truly on the cutting-edge of the chemical grouting industry.