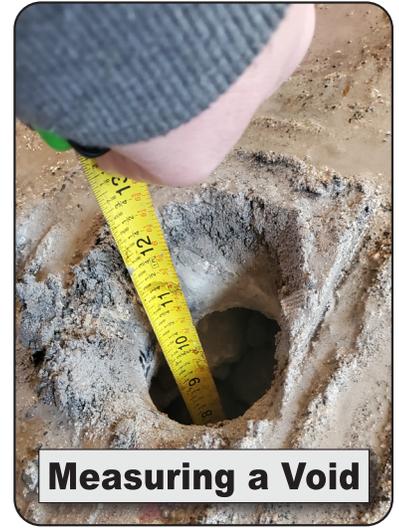


**POWERFUL POLYMERS  
PAINLESS PROCEDURES  
RAPID RESULTS**

**Stabilizing a Foundation to Save a Valuable Two Story House Contamination**

The owners of a valuable one-story house in New Jersey decided to add a second story to the structure. Unbeknownst to them (and to the contractor who worked on the project) four feet of the soil beneath the foundation had been poorly compacted by the home builder. When the second story was added, the soil could not support it and the foundation was critically damaged. The foundation issue caused the structure to shift a bit, which then caused roof damage as well.

When the contractor attempted to replace the roof, rainwater infiltrated the structure, eventually reaching the poorly compacted soil beneath the foundation and creating voids. These voids further destabilized the entire structure. Talk about a problem going from bad to worse! By this point, the residents had been forced out of their home for about a year! The general contractor then contacted a geotech contractor for assistance.



**POWERFUL POLYMER**

The crew used Alchemy-Spetec's AP Fill 700 high-strength soil stabilization grout to solidify the four feet of poorly compacted soil beneath the foundation. This polyurethane resin was the ideal choice because of its ability to thoroughly permeate the soil and then cure to an incredibly high compressive strength. They used Alchemy-Spetec's PolyShark grout pump to install the material. This pump is specifically designed for large-scale soil stabilization jobs.

**Physical Properties - Cured**

AP FILL 700		
Tensile Strength	(ASTM D-1623)	45 psi (3,102 mb)
Tensile Elongation	(ASTM D-1623)	2.9%
Shrinkage	(ASTM D-1042/D-756)	Negligible
Compressive Strength (with fine sand)	(ASTM C-39)	2,050 psi (141,343 mb)
Pre-activated mix viscosity	110 -130 cP	

Properties will vary depending on application conditions.

## **PAINLESS PROCEDURE**

The crew used a Geoprobe pipe driver to insert grout injection pipes four feet deep into the supporting soil around the house. AP Fill 700 was then injected to stabilize the soil. They also used a carbide drill bit to create small 3/8" drill holes in the concrete foundation slab in a diamond pattern, 4 feet on center. After each drill hole was created, the crew inserted a pipe through the slab and into the ground, pumping the grout to stabilize the soil and fill the voids.

## **RAPID RESULT**

The geotech contractor completed stabilization of the entire foundation in just two weeks, ending a year-long cycle of compounding problems for the structure. This allowed the general contractor to repair the foundation, finish replacing the roof, and replace the damaged flooring with no further issues. Most importantly, the beleaguered residents were soon able to move back into their house after an exhausting, year-long ordeal.

## **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.