

**POWERFUL POLYMERS
PAINLESS PROCEDURES
RAPID RESULTS**

Deep Soil Stabilization at Shopping Center

City Creek Center is an up-scale shopping mall in downtown Salt Lake City. While under construction a five-foot-wide trench, located between two underground parking garages, was back-filled with pea gravel, and then a sidewalk was built on top of it. About ten years later the gravel began to settle enough to cause underground power lines to stretch and finally tear, knocking the power out for many of the local businesses. Engineers determined that the trench could be stabilized with the installation of polyurethane grout at depths of 30 feet below the surface. A local geotechnical services contractor was called in to perform the work.



POWERFUL POLYMER

AP Fill 700 is a single component, water-activated, hydrophobic, low viscosity, closed-cell polyurethane injection resin. This polyurethane material was selected because it is ideal for both permeating soil and filling voids. It also provides excellent strength and stability.

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

An Alchemy-Spetec technical consultant worked closely with the geotech contractor to develop the injection plan, detailing exactly where each of the injection points would be located. The plan was then communicated to the engineer and approval was given to move forward with the project. The geotech crew installed 10 injection tubes 30 feet deep into the soil. They then pumped approximately 1 gallon per vertical foot of AP Fill 700, as they pulled the tubes up 1 foot at a time. The injection points were spaced about 36" apart.

RAPID RESULT

After only two days the site work was completed, and the general contractor was able to move forward with filling the trench and repairing the sidewalk.

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.