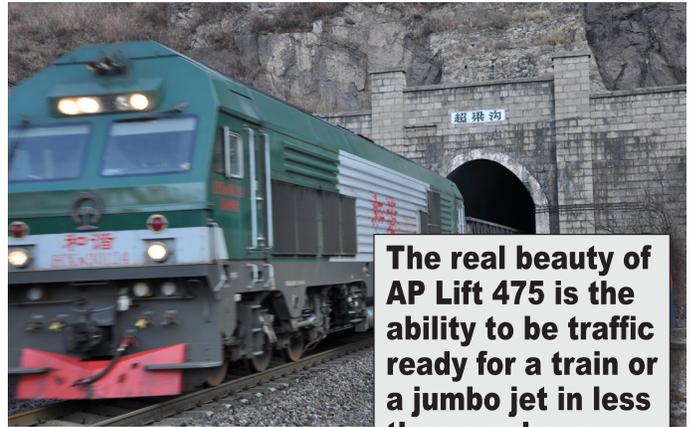


**POWERFUL POLYMERS
PAINLESS PROCEDURES
RAPID RESULTS**

Sinking Slab Under Tracks Causes Safety Hazard for Chinese Railway

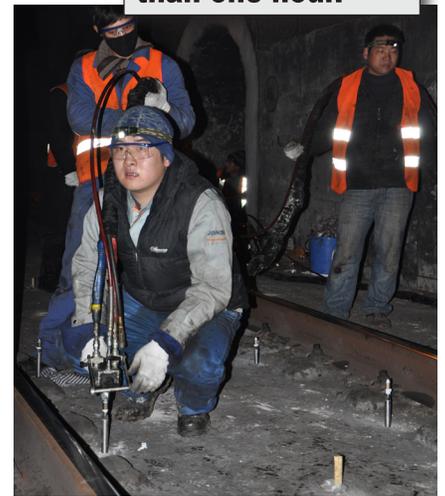
Nowhere on earth are they building more railroad lines than in the People's Republic of China. The most populous nation in the world is developing rapidly and with it comes a need for more and more freight and passenger rail - and the demand for higher and higher speeds. Unfortunately, these high speeds cannot be achieved on rail that is sinking and settling in various places, especially in tunnels. This slows down people and commerce and is also a concern for safety. The culprit is groundwater, soil consolidation, and in some cases poor compaction. This is the type of environment where AP Lift 475 does some of its best work.



The real beauty of AP Lift 475 is the ability to be traffic ready for a train or a jumbo jet in less than one hour.

POWERFUL POLYMER

AP Lift 475 is a two component, hydrophobic, structural lifting polymer designed for airport, highway, and railroad applications. It can be used to stabilize structures, fill voids, and lift slabs supporting tremendous loads. The real beauty of it is the ability to be traffic ready for a train or a jumbo jet in less than one hour. In tunnels in the mountains of China it would be put to the test.



Physical Properties - Cured

AP LIFT 475			
Compressive Strength	(ASTM D-1621)	100 p.s.i. or 14,000 p.s.f.	6,895 millibar
Tensile Strength	(ASTM D-638)	100 p.s.i	6,895 millibar
Expansion	(Unconfined)	14-16 times	-
Density	(ASTM-D 1622)	4.5 to 5.0 lb/ft3	72.08 to 80.09 kg/m3
Shrinkage	(ASTM D-1042/D-756)	Negligible	Negligible

Properties will vary depending on application conditions.

PAINLESS PROCEDURE

With rails sitting on double concrete slabs (the top slab is 1 meter thick, the bottom 30 cm) a plan was developed to bring the low spots back into tolerance by injecting AP Lift 475 underneath both slabs through extra-long injection packers.

Monitoring with laser levels, the low spots in the rail were lifted back to the original grade. AP Lift 475 performed as advertised. The railroad track was raised and supported, while at the same time the ground water was displaced, literally jetting out of relief holes as it sought a place to escape.

RAPID RESULT

Working in 4 hour windows where the rail traffic is shut down at night, low spots in these tunnels are being lifted in hours. At 5 AM equipment and personnel have to be clear of the tracks and 15 minutes later the trains rumble through. Vibration monitoring by railway engineers show a smoother ride and the people and commerce of China are allowed to move once again at a frenetic pace.

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.