



Protecting a Building Foundation Next to an Excavation Site

A general contracting company working on an excavation job for a new sea turtle habitat at Loggerhead Marinelife Center in Juno Beach, Florida needed specialists to protect the foundation of the adjacent building from potential destabilization. A soil stabilization contractor was called in to create a polyurethane grout wall for this very purpose.

Powerful Polymers

The crew used AP Soil 600, a single component, moisture activated, hydrophobic, extra-low viscosity, polyurethane soil grout. This is the premier product for stabilizing soil via permeation grouting. It's also NSF-approved for contact with drinking water. Using an environmentally safe repair material in a marine habitat is extremely important.



Physical Properties 77° F (25° C) - Liquid Physical Properties - Cured

AP SOIL 600			
Tensile Strength	(ASTM D-3574)	175 p.s.i.	12,066 millibar
Shrinkage	(ASTM D-1042/D-756)	Negligible	Negligible
Compressive Strength (with fine sand)	(ASTM D-575/D695)	2,085 p.s.i.	143,756 millibar
Pre-activated mix viscosity	37 - 39 Centipose		

Properties will vary depending on application conditions.

Painless Procedure

The crew drove injection rods into the ground next to the building foundation in a staggered pattern (see photo). The rods were 18 inches apart from each other to ensure consistent, thorough permeation of the soil with the high-strength grout. They injected at a rate of one gallon per foot. A total of 500 gallons was used to form the grout wall. The project was completed in just two days.

Rapid Result

The resin was cured within 24 hours of completion. The job was finished on a Friday. On the following Monday, the GC began excavation on the future sea turtle habitat without any fear of damaging the adjacent foundation.

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

This information is provided in good faith, but without guarantee. The application, use and processing of the products are beyond our control and therefore your entire responsibility. Should Alchatek nevertheless be held liable for any damage, such liability will be limited to the value of the goods delivered by us. We are committed to providing high-quality goods at all times. This version supersedes all previous versions. Revision Date: April 26, 2023 4:51 PM