



Stopping Leaks in a Grain Elevator Pit

So, you have another clog in your boot? Well, your grain elevator boot that is. This means shutting down to clean your grain elevator. Which means loss of production, loss of grain, and delays. Drains and sump pumps clog and can be unreliable.

A grain cooperative in Washington state contacted a local leak seal specialist. An Alchatek support technician met them on-site and inspected the leaking boots in question. One was poured concrete and the other was poured concrete with a metal interior liner. Both had multiple areas of water intrusion and sumps that were not able to handle the leakage. The technician and the contractor developed a grouting plan and an estimate for the co-op.

Powerful Polymers

Spetec PUR HighFoamer was the ideal grout for forming a positive side waterproof barrier known as a curtain wall without having to excavate and with very little downtime.

Spetec PUR HighFoamer is a highly expansive grout (40x-50x) and it is also NSF 61-approved for potable water use.

PHYSICAL PROPERTIES - CURED

SPETEC PUR HIGHFOAMER		
Tensile Strength	(ASTM D-1623)	43psi (2965 mb)
Tensile Elongation	(ASTM D-1623)	3.8%
Shrinkage	(ASTM D-1042/D-756)	Negligible
Compressive Strength (with Fine Sand)	(ASTM C-39)	1803 psi (124313 mb)

Properties will vary depending on application conditions.

Painless Procedures

Pumping polyurethane grouts is done with a modified airless paint sprayer. Since this pump is lightweight, it is easy to mobilize in remote or difficult-to-access locations. Normally, the technicians would set up a 2' on-center grid pattern for curtain wall grouting. With the elevator equipment layout, they had to adjust the spacing. By pumping hole to hole they ensured water-tight grout coverage even with the irregular port spacing.



Rapid Results

A few weeks later, the Alchatek consultant and the contractor met back on-site for the installation. While working in a grain elevator pit and working with urethanes can be a bit messy, the injections went well and the water intrusions were stopped in both pits on time and under budget.

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.

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