



Saving a Luxury Penthouse Suite from Costly Water Damage (Just in Time!)

A contractor in Atlanta was recently called in to seal off a rain-induced ceiling leak in a new construction high-rise penthouse suite. Sealing off the water intrusion from the roof above was not an option, due to the rooftop swimming pool directly above the penthouse. So, they had to get into the ceiling from the interior of the suite and repair the leak from the underside.

Powerful Polymers

The crew on this job injected Spetec PUR F400, a water-reactive, hydrophobic, flexible, single component polyurethane resin. This product is ideal for sealing off active leaks in cracks.



Physical Properties - Uncured - (appearance white liquid)

SPETEC PUR F400		
Viscosity at 77°F (25°C)	(ASTM D4878-98)	±340cps (±0.34 Pa·s)
Flash Point	(ASTM D1310-86)	>302°F (>150°C)
Density	(ASTM D3505-96 [2000])	1.067 ± 0.005 oz/ft ³ (1.068 ± 5.006 g/m ³)

Physical Properties - Cured

SPETEC PUR F400		
Tensile Strength	(ASTM D3574-03)	290psi (20 bar)
Elongation at break	-	±100%

Properties will vary depending on application conditions.

Painless Procedure

Leaking concrete structures can be permanently repaired with concrete crack injection & curtain wall procedures using water-activated polyurethane foam. Pressure injection of these liquid polyurethane resins forces the material into leaking cracks or behind leaking walls depending on the application. After the polyurethane injection is complete, the polyurethane resin rapidly reacts with water to form a watertight seal.

Rapid Result

In this case, the leak was shut down in less than two minutes. This all went down literally right before the new tenant was scheduled to begin moving in. (No pressure there!)

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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