

Manhole rehab using Hydro Gel SX prior to cementitious lining

Problem: Ace Pipe Cleaning, a Carylton company in Kansas City, Missouri, has five crews doing manhole rehabilitation, including lift stations. Their bread and butter is applying epoxy coatings and cementitious linings, but in order to do that, they have to stop any active infiltrations first.

Solution: They do this with low pressure injection of **Prime Flex Hydro Gel SX**. This product is a single-component, hydrophilic polyurethane resin that reacts with water to form an impenetrable foam or gel, depending on the concentration. Hydro Gel SX is a very low viscosity, quick setting resin, ensuring the ability to penetrate fine cracks as well as fill larger gaps.

Outcome: According to Ace's Bryan Dobson, his crews like it because it is easy to use and fast acting.

"Anyone fighting I&I has several choices on the market that most guys have tried. We've tried a lot of things and we've settled with Hydro Gel," says Dobson. **"Because it's fast acting, it helps expedite that part of our work. Our revenue comes from lining, so the quicker we can fully stop leaks, the sooner we can install our linings."**

Dobson's crews use pneumatic and electric pumps to install the Hydro Gel SX in volume, though it can also be installed with the same equipment used for acrylamide grouts, including inline packers. Ace uses it to stop active infiltrations strictly in conjunction with lining though other contractors use it by itself for sealing below-grade infiltration such as pipe penetrations, such as this one pictured.

(Note: A slightly edited version of this case study appeared in the April 2016 issue of Municipal Sewer & Water magazine in the feature Manhole Equipment and Rehabilitation Case Studies.)

Hydro Gel SX is used to seal a leaking pipe penetration. Photo copyright Prime Resins; not for reuse.

