

Las Virgenes Water District Approves Spray Applied Epoxies as Equal to Fusion Bonded Epoxy (FBE)

In 2014, the Las Virgenes Municipal Water District began construction on a new 5 million gallon pre-stressed concrete tank. The tank and pipeline were designed to provide essential storage capacity for the western portion of the district as one element of the district's four-phase "Backbone Improvement Plan" to reduce the risks of low water pressures, water outages, and inadequate emergency supplies. The increase in capacity will allow for emergency fire water, current demands for potable drinking water, and future customer demand. Mobile Pipe Lining & Coating was selected to apply corrosion protection to the steel casing portion of the project.

Pipeline Details and Project Summary

Project:	Backbone Improvement 5 MG Tank
Location:	Westlake Village, CA
Length:	1,064 LF
Pipe Size:	42" inch pipe casing
Lining/Coating:	Bare/ 20 mils Polyclad® 975 and 3 mils Carbothane® 134HG Urethane
Owner:	Las Virgenes Municipal Water District
Engineer Firm:	AECOM
Contractor:	West Coast Pipe



Polyclad 975 is a 100% solids epoxy applied at 20 mils nominal thickness. It is designed as an alternative to FBE. [For more information click here](#)

The project required 1,064' LF of 42" inch steel casing pipe to carry the 36" water main entering the saddle dam. The casing pipe required a bonded coating for corrosion protection and an additional coating for protection against UV exposure. The specification called for AWWA C213 fusion bonded epoxy (FBE), but because of the short length of 1,000 lineal feet and large diameter, the economics of FBE made the FBE coating less desirable. Over the last decade, technological advances in 100% solids epoxies have led to premier pipeline products such as Polyclad® 975 that have comparable properties to FBE for project work as well as field application.

The contractor, West Coast Pipe, needed to find a subcontractor with a high level of quality and experience with spray applied epoxies and the ability to quickly process the pipe to meet the target installation date of September 2014. Mobile Pipe's automated equipment and established QP3 Quality Control Program, provided both efficient and effective methods for processing the project within the quality and time constraints. Mobile Pipe ultimately turned the project around in three weeks.



The 42" casing pipe also received 3 mils of Carbothane® 134HG for UV protection. Both the 975 and 134HG product can be applied in the field for joint protection.



Utilizing automated production schedules, Mobile Pipe was able to process the order in under three weeks. The pipe leaves the facility 100% holiday free.