



Powercrete® Epoxy Coatings for Corrosion Control and ARO Environments, including Horizontal Directional Drilling

Horizontal directional drilling (HDD) provides owners with the ability to inexpensively install pipelines under existing infrastructure such as roadways, ecologically sensitive zones, and hazardous areas. When planning an HDD installation, care should be taken to protect the pipe substrate from external corrosion and to reduce the post-installation cathodic protection current requirements. A well applied and intact pipe coating system improves the cathodic protection current distribution across the pipeline after installation. In the gas and energy industry, fusion bonded epoxy (FBE) is a widely employed corrosion control coating for steel pipe. For all of its advantages in corrosion control, however, FBE typically cannot withstand the rugged and abrasive environments of an HDD installation and often requires an Abrasion Resistant Overlay, commonly known as an ARO.

Epoxy coatings such as Powercrete® can be applied as protection for a successful HDD pull-through. Powercrete® coatings are two-component, solvent-free epoxies that contain no VOC's (volatile organic compounds) and possess high-build properties when spray-applied (30 mils in one pass). Powercrete® R-60 can also be applied directly to steel pipe, providing equivalent corrosion protection as compared to an FBE coating while also providing the abrasion protection advantages of the best ARO coatings.

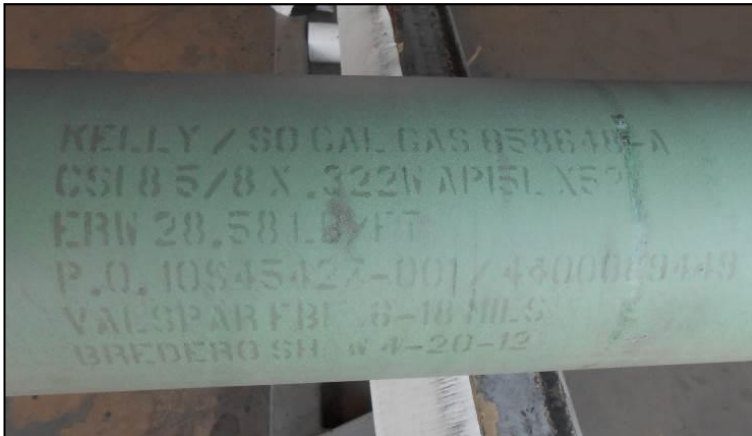


Project Details and Project Summary

- Project Name: SoCal Gas Transmission Upgrade
- Location and Timing: SoCal gas transmission lines, July 2013
- Pipe Size and Length: 32,012' LF of 8-inch DRL
- Coating: 35 mils Powercrete® R-60
- Customer: SoCalGas

Recently, the Southern California Gas Company installed 32,012 LF of 8-inch pipe under existing infrastructure via HDD. Because longevity of this critical transmission line was extremely important to SoCalGas, it protected the line during the HDD operation with the abrasion and corrosion protection afforded by Powercrete® R-60 applied by Mobile Pipe Lining and Coating (Adelanto, CA). Furthermore, Powercrete® was easily applied in the field for coating the weld joints on this project. Powercrete® field kits offer operators flexibility in applying the same rugged product in the field as in the factory, and provide monolithic protection across the pipe system.

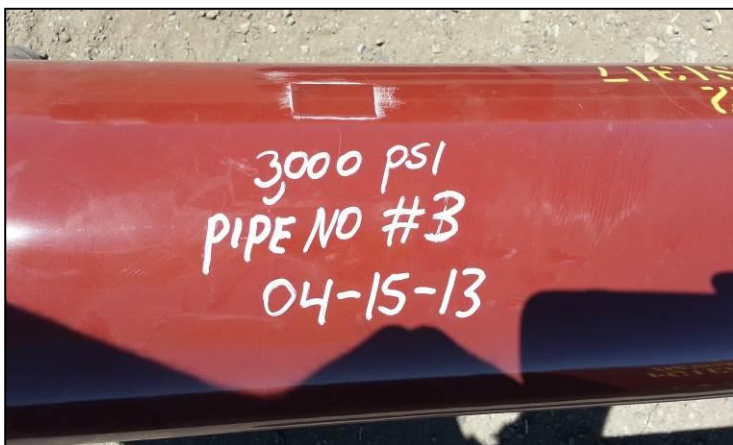
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FBE lightly blasted and washed ready for Powercrete® R-60.



Powercrete® R-60 applied at 35mils. The pipe is positioned on rotating wheels and Powercrete® is spray applied. The coating is then checked with a wet film thickness gauge (WTF) and allowed to cure. Once cured, it is checked with a dry film thickness (DFT) gauge to verify specification compliance. Once the hardness reaches 78 Shore D, the pipe is ready to be handled and tested for holidays and proper adhesion.



Each pipe is tested via ASTM D4541 for proper adhesion. This test shows a value of 3,000 PSI. Once the dolly is removed, the coating is sanded then patched.



All stenciling information is painted on the pipe for identification and quality control records.

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