



CASE STUDY

GULF COAST FIREWATER LINE

Firewater Pipeline



Denso Paste is easily applied to the substrate by gloved hand or brush as the initial application step.



A smooth profile is achieved with Denso Profiling Mastic prior to the application of Densyl Tape.



Large water valve completely encapsulated with the Denso Petrolatum Tape System will provide decades of corrosion prevention.

Project Data

Location	United States
Completion	2023
Project Type	Firewater Pipeline
Products Used	Denso Petrolatum Tape System

Project Details

An oil terminal located in the Gulf Coast was installing a new firewater line and they wanted to protect it from corrosion so that it would function correctly in the event of a potential catastrophic fire disaster at the facility. Several hundred flanges and valves ranging from 4" to 20" in diameter needed to be protected on the firewater line. With most paint systems, weather can play a factor in it deteriorating quickly over time, allowing corrosion to set in through the tiniest coating cracks or imperfections. To mitigate this calamity, the owner turned to Denso's Petrolatum Tape System to be the primary source of corrosion prevention on this project.

The Denso™ Petrolatum Tape System was specified by the design engineer to ensure the firewater lines would be in pristine working condition for years to come. The Petrolatum Tape System is comprised of 3 main components and typically has an outerwrap for mechanical protection. This application uses Denso™ Paste, Denso™ Profiling Mastic, Densyl™ Tape, and Denso™ Glass Outerwrap for mechanical protection. This system is easily applied by hand without requiring specialized training or equipment. Furthermore, the application can commence with minimal surface preparation of SSPC-SP 1/2. First, the Denso Paste is applied as the first defense layer of corrosion prevention. This petrolatum primer helps fill in any pitted areas where the Densyl Tape may not come into contact with the surface and contains moisture-displacing corrosion-inhibiting compounds. The second step is application of Denso Profiling Mastic on the flanges and valve's irregular and sharp corners, to create a smooth profile across these areas before applying the Densyl Tape. The Densyl Tape, a petrolatum wax tape, is then spirally wrapped by hand over each flange and valve to completely seal out oxygen and water.

Depending on the project's environment and during backfill, there are several different Denso options for an outerwrap to protect the Denso system and keep it in place. In this instance, Denso™ Glass Outerwrap was used as the outerwrap. This material cures quickly, within 30 minutes, creating a hard protective shell around the tape system underneath from mechanical damage. Once cured, the tape system is ready to be backfilled. The Denso™ Petrolatum Tape System meets NACE RP0375-2006 and AWWA C217 standards and is also CSA Z245.30 compliant.

The owner and engineers were pleased with how easily and quickly the Denso Petrolatum Tape System was installed, protecting hundreds of flanges and valves, and completing the project ahead of schedule. This allowed the new firewater line to become operational on time and saved money on the project by the speed of completion. The owner's assets will receive decades of corrosion prevention with the help of the Denso System.

Benefits

- Not affected by salt contaminants, water, acids or soil organics
- Conforms to irregular shapes and profiles

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