



DURA-PLATE UHS PROTECTS NORTH AMERICAN PIPELINES

A major North American pipeline company invested in four new crude oil storage tanks at their Cushing, Oklahoma terminal in 2004-2005 in order to increase their storage capacity by about 2.1 million barrels in support of surging North American crude oil production.

After the tanks were erected and hydro-tested, a Sherwin-Williams internal lining was applied to protect the tank from internal corrosion. As these tanks near their required API-653 inspection after ten years in service, the first tank was opened in August, 2013.

A FULL INSPECTION OF THE TANK WAS CONDUCTED AND NUMEROUS MECHANICAL MODIFICATIONS WERE ALSO SCHEDULED TO BRING THE TANK UP TO CURRENT COMPANY CODE AS WELL AS EQUIP IT FOR THE SERVICE IT WILL SEE OVER THE COMING DECADES. THIS INSPECTION INCLUDED A THOROUGH EVALUATION OF THE SHERWIN-WILLIAMS DURA-PLATE UHS (ULTRA HIGH SOLIDS) EPOXY INTERNAL LINING.

BUILDER:

Matrix Service Company

DIMENSIONS:

82.6 m (271') diameter
x 16.9 m (55'6") height

CAPACITY:

84,718 cubic meters
(532,860 US barrels)

FROM SPEC TO PROTECT

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PROTECTING PIPELINES, OKLAHOMA



Dura-Plate UHS 600-750 microns DFT after nearly nine years of crude/water immersion



Close-up of Dura-Plate UHS



Mechanical repairs

RESULTS OF INSPECTION

The internal lining was found to be in excellent condition and has totally prevented any topside corrosion of the tank floor in the nearly nine years the tank has been in continuous crude oil/water service. After determining that the adhesion and film integrity of the Dura-Plate UHS lining were still excellent, the lining was considered by the tank integrity engineer to be qualified to remain in service for at least another ten years.

However, due to the widespread mechanical damage caused to the lining while various tank mechanical upgrades were being installed, the owner elected to blast out the internal lining and reinstall the same Dura-Plate UHS system.

They were very pleased with the performance of the lining and are confident it will protect the tank bottom from internal corrosion until at least the next scheduled inspection in 2023.

FEATURED PRODUCT

Dura-Plate UHS, B62W210/B62V210,
1 coat applied at 24-30 mils (600-750 microns) DFT.

Lining was applied to tank floor as well as the lower 1 m (3') of the tank shell, pipe supports, and the floating roof support legs.

SURFACE PREPARATION

SSPC-SP1 Solvent Clean, SSPC-SP10/NACE #2 Near White Abrasive Blast Clean, 50-75 microns (2-3 mil) profile.

THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems that excel at combating corrosion helps customers achieve smarter, time-tested asset protection. We serve a wide array of industries across our rapidly growing international distribution footprint, including oil and gas, water and wastewater, bridge and highway, steel fabrication, flooring, food and beverage, rail and power, and marine.

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