

## FEATURED PROJECT

# Chemical-Resistant Coatings

## INTERNAL COATING FOR BIODIESEL IMMERSION

### CUSTOMER

New York Utility Company

### DATE OF APPLICATION

November 2021

### SYSTEM

FRP 201 OT Primer, HP 300 GF

### LOCATION

New York City

### SUBSTRATE

Carbon Steel

PROBLEM

A major regional energy provider began transitioning their fuel oil storage tanks to biodiesel as part of their clean energy initiative. These tanks built in the early 20th century had internal support braces throughout the interior for “bomb-proofing”. Because biodiesel is significantly more corrosive than hydrocarbon-based fuels, the customer decided to apply an immersion-grade coating system to the floor of the tank, 2” up the angled supports on the floor and 24” up the side walls. To facilitate the application, the tank was fully drained and all oil needed to be removed prior to coating.

Following multiple attempts to clean the tank and remove the residual oil, it was clear that it would be very difficult and costly to achieve an SSPC SP-10 Near White standard of cleanliness. Advanced FRP Systems recommended an oil tolerant epoxy primer be applied prior to the immersion-grade coating after on-site testing and verification.

### INSTALLATION STEPS:

1. After inspection, the sections of the tank with the heaviest oil residue were solvent washed to the desired cleanliness and then grit blasted.
2. FRP 201 OT Primer was applied to all necessary surfaces to provide a layer of protection against any residual oil contaminating the surface.
3. The angles and supports were stripe coated with HP 300 GF to ensure coverage on difficult areas.
4. HP 300 GF was then applied to the floor and walls in two coats.

Though the cleaning process caused severe delays, the primer and immersion-grade coating system were installed quickly and the project was completed successfully and within a reasonable timeframe.

- FRP 201 OT Primer allowed for a more forgiving cleanliness to be achieved while still providing the required adhesion to the substrate.
- HP 300 GF is designed to resist residual methanol, ethanol, caustics and even microbially induced corrosion associated with biodiesel. It contains a glass-flake reinforcement to prevent water permeation through the film.
- Provides a maintenance-free, 20-year service-life extension.

SOLUTION

BENEFITS



Figure 1 Solvent Washing After Oil Removing

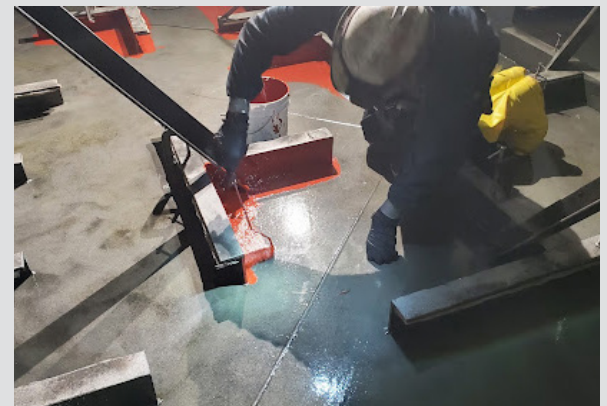


Figure 2 Stripe-Coating After FRP 201 OT Primer Application



Figure 3 After HP 300 GF Application