



# THIN FILM TECHNOLOGY, INC.

HIGH PERFORMANCE EPOXY COATINGS

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## CASE HISTORY:

### GASOLINE TANK LINING – JAMAICA

**PRODUCTS** BIO-SEAL 192J, BIO-DUR 560

**LOCATION** JAMAICA

**YEAR** 2016

#### CHALLENGE

This tank is a very old, large steel storage tank over 200 feet, (61 meters), in diameter. The floor of the tank had several leaks and many areas of severely thinned steel. The existing coating was totally worn and failing. A substantial lining of epoxy resin and fiberglass was installed to provide permanent protection and to assure complete sealing of potential leaks in the future. The gasoline stored in the tank contains 10% ethanol. This makes the gasoline significantly more aggressive than regular gasoline.

#### SOLUTION

Standard BIO-SEAL 192 was upgraded to increase cross-link density by a modification of its curing agent. The upgraded material was given the designation BIO-SEAL 192J.

#### IMPLEMENTATION

Obvious holes in the tank bottom were patched with steel plates. Surface preparation was by abrasive blasting to NACE 2, SSPC-SP-10. Delays after initial blasting resulted in some areas requiring re-blasting to remove flash rust.

The steel surface was first primed with a wet coat of BIO-SEAL 192J applied by plural spray. The fiberglass cloth was then laid onto this prime coat and more 192J was sprayed over it. Hard rollers were then used to wet out the fabric. Successive layers of glass were applied with an inch or so overlap. The glass application was carried up a meter on the vertical walls.



This was a large tank in fairly warm conditions so care was taken not to let any epoxy cure for longer than 36 hours before being overcoated.

When then glass and epoxy application was completed the entire lower surface including the lower 1 meter wall area was sprayed with BIO-DUR 560J, (upgraded in the same way as BIO-SEAL 192J), at a nominal thickness of 20 mils/500 microns.

#### OUTCOME

The tank was completed on time and on budget with a very happy customer. We look forward to getting additional tank work in Jamaica as a result of this successful project.

