



Case study: Chemical Protection Against 96% Sulphuric Acid

Resistance for Chemical Storage Tanks and Covers

Job No: TT109

Client

Fabricator of vessels and tanks, UK.

Application date

April 2016.

Scope of work

Client required additional chemical resistance for two storage tanks due to enter service in the chemicals processing industry. The internal surfaces of the tanks would be subject to constant immersion in 96% sulphuric acid.

Products

Plasmet AR3.

Corrofill E.

Substrate

Carbon Steel.

Coating system

- Masked off any areas not requiring treatment.
- Abrasive blasted specified internal surfaces with new abrasive in accordance with ISO 8501-1 to Sa2^{1/2} surface finish, to achieve a minimum surface profile of 50 microns.
- Complete a final blow down, sweep and vacuum cleaned thoroughly to remove dust.
- Radiused internal angles of the floor/wall interface to ensure full continuity of the coating.
- Used Corrofill E at the floor/wall interfaces to provide structural integrity for the lamination.
- Laminated the floor/wall interfaces using multi-axial glass fabric, thoroughly wetted with Epoxy Laminating Resin and rolled into place to remove any trapped air and aid adhesion.
- Applied Plasmet AR3 to the manways and nozzles to the specified DFT where achievable.

CORROCOAT



Coating system continued

- Applied Plasmep AR3 to average DFT of 1500 microns.
- Carried out thickness testing.
- Spark tested following adequate cure of the coating.

Coating Credentials

Plasmep AR3: a two-pack solvent free polyamine cured epoxy, resistant to strong concentrations of sulphuric and other acids. AR3 is primarily produced for protecting against strong concentrations of sulphuric acid, this product can also be used for other acids and in some strong alkali service duties. Applications include bund areas, tanks, pipe work, floors, decking, structural steel, etc.