Tank Floor

Oil & Gas — Downstream
ARC 858 and S1 Coatings
Case Study 036

Challenge

Issue
Previously applied coating had failed after 2 years, resulting in severe pitting and weld zone corrosion. Client was forced to replace 10% of floor plate at cost of €175K. 40% of floor experienced pitting corrosion up to 30% of plate thickness.

Goal
Restore tank to avoid extensive plate replacement.

Root Cause
Prior failed lining and corrosive effects of seawater.

Solution

Preparation

- Plate replacement in 10% of surface area
- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

Application

1. Corroded and pitted areas were brought back to 100% of original thickness with ARC 858
2. Use ARC S1 to stripe coat weld seams, striker plates, and transition points
3. Apply 2 coats of ARC S1 via heated plural component spray equipment to a total DFT of 20 mils (500 µm)

Results

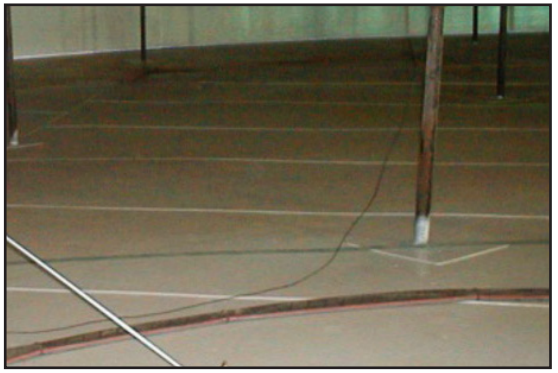
Client Reported
The ARC lining is still protecting the tank after 5 years.

Client Reported Savings

■ Plate repair, weld repair	€1,750,000
■ Previous lining	€ 150,000
Total	**€ 1,225,000**
■ Plate repair and ARC lining	-€ 375,000
Savings	**€ 850,000**

Severe pitting corrosion found under the existing coating repaired with ARC 858

Application of the stripe coat to all weld seams



Final inspection of the ARC lining to ensure a continuous pinhole free protective lining

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