

Challenge

Issue

Aeration tanks at a wastewater plant built in the 1970s treating waste from a major food manufacturer were in need of renovation and protection.

Goals

The customer wanted to extend the operating life of these tanks and avoid the expense of building new tanks.

Root Cause

The wastewater coming from the food plant contained fatty acid waste that was attacking the concrete of these tanks.



Aeration tank before renovation.

Solution

Preparation

Chemical decontamination using alkaline water-based degreasers was followed by UHP water blasting to ensure a clean sound substrate was achieved.

Application

Severely damaged areas were rebuilt using a cement mortar, followed by the application of two coats of **Chesterton® ARC CS2(E)**.

ARC CS2(E) is a solvent-free epoxy coating that can be applied directly onto concrete to provide excellent long-term protection to concrete subjected to moderate chemical and physical attack.



On-going application of **ARC CS2(E)** in one of the tanks.

Results

Client Reported

A total of 987m² of concrete was protected with **ARC CS2(E)**.

The centrifugal aerator was also restored and protected using **ARC 855(E)**. Walkways and stairs around the plant were given a slip-resistant surface using **ARC 855(E)** with silicon carbide.

The project was completed on schedule and saved the customer 200,000 Euro versus new construction costs.



Result of the renovation with **ARC CS2(E)**.