

DISSOLVED AIR FLOTATION TANK PROTECTED

ID: 10253



PROBLEM

A sewage treatment plant required a solution to protect a Dissolved Air Flotation (DAF) tank, used in wastewater treatment, from corrosion and chemical attack. The DAF tank was constructed from reinforced concrete and includes a carbon steel scraper system.

With a history of corrosion issues at other sites, the client recognized the need to take a proactive approach by applying a protective coating to extend the service life of the tank before any severe damage occurred.

APPLICATION SITUATION

The customer selected Belzona 5811 (Immersion Grade) as it is an epoxy coating designed to provide corrosion and chemical protection for equipment operating under immersion, offering a superior long-term solution compared to other available products. This has resulted in a significant extension of the tank's service life, limiting long-term degradation.

APPLICATION METHOD

Following an initial assessment of the tank, cleaning was carried out to remove oil and grease from the rails and tank internals. The internals were then high-pressure hot washed twice at 120°C to remove all contaminants. Next, the tank internals were sponge and garnet blasted to remove the existing coating and to roughen the concrete surface, creating a suitable profile for mechanical bonding of the Belzona system.

Subsequently, the tank internals were cleaned to remove all dust generated from abrasive blasting. A first coat of Belzona 5811 (Immersion Grade) Beige was then applied to the tank internals at 250 microns, followed by a second coat of Belzona 5811 (Immersion Grade) Grey at 250 microns, achieving a total minimum dry film thickness of 500 microns.

BELZONA FACTS

Belzona 5811 (Immersion Grade) not only met the application requirements but also provided excellent value for money, given the coating area involved.

INDUSTRY

Water / Wastewater

LOCATION

Melbourne VIC

APPLICATION DATE

July 2024

PRODUCTS

Belzona 5811 (Immersion Grade)

SUBSTRATE

Concrete

PHOTOS

1. The tank internals were sponge and garnet blasted to remove the existing coating and to roughen the concrete surface.
2. Belzona 5811 (Immersion Grade) epoxy coating was spray applied to the concrete surface.
3. General view of the Dissolved Air Flotation (DAF) tank in a wastewater treatment plant.
4. Complete application of a two-coat system using Belzona 5811 (Immersion Grade).

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