

## Project Profile - Coastal Structures



### PROJECT

Seawater/intake tanks & pump house refurbishment, Dubai, UAE

### SUMMARY

Repair and chloride protection of seawater intake tanks and pumping chambers

### PRODUCTS

**Cemprotec E942**  
**Marine Mortar S**  
**Steel Reinforcement Protector 841**

### CLIENT

Dubai Aluminium Co., Dubai, UAE

### CONTRACTOR

Mott MacDonald / Al Futtaim  
Carillion, Dubai, UAE

### BACKGROUND ►

The largest aluminium smelting operation in Asia relies on the supply of cooling water produced from a desalination unit.

After 20 years service, the concrete seawater intake tanks and associated pumping chambers were suffering from extensive corrosion of the steel reinforcement, leading to cracking and spalling of the concrete substrate. The highly aggressive conditions determined the use of a specialist repair and protection system to ensure future durability.

### THE SOLUTION ►

The Flexcrete approach was adopted as a complete range of products was available to meet all the demands of this project. After cleaning of the exposed bars, **Steel Reinforcement Protector 841** was applied, followed by **Marine Mortar S** to complete the repairs. As a unique chloride barrier coating was to be used overall, the general surfaces were levelled to a standard suitable for treating with **Monolevel 844SP** and the work was completed with a 2mm layer of **Cemprotec E942**, providing a tough, chemical resistant finish with very low water permeability and proven performance in similar exposure conditions.



FM 41091  
EMS 597350  
OHS 597351

Quality  
Environmental  
Health & Safety

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