Maintenance of concrete clarifiers

Case study 2013

Focus products: Intercrete® 4850, Intercrete® 4801, Intercrete® 4841, Intercrete® 4870

Location: Tasmania, Australia

Client: Clarkes Painting Services

Background

TasWater is an amalgamation of the three Tasmanian Water and Sewerage Corporations namely Ben Lomond Water, Cradle Mountain Water and Southern Water, and their service firm Onstream, formed in 2008 as a result of significant reform of Tasmania's water industry. The Ben Lomond site in Launceston, Tasmania identified two poured in-situ concrete clarifier tanks that required significant repairs to the internal face through decades of attack from Hydrogen Sulfide (H2S). The concrete surfaces had aggregate exposed and the risk of deterioration to the reinforcing steel if left un-treated. The steel structures above the clarifiers also required re-coating as the existing protective coatings had deteriorated, exposing the steel to accelerated corrosion.


Original surface


Intercrete 4801 application


Intercrete 4801 completed


Intercrete 4841 application

The solution

AkzoNobel offered a complete systems solution involving the protection of the steel and concrete. Intercrete 4801, high build, structural repair mortar was utilized to reinstate the degraded concrete, followed by the application of two coats of Intercrete 4841 to provide a simple, yet durable and long term protective solution. Intercrete 4841 is a two-component, polymer modified, cementitious coating with excellent resistance to carbonation and chloride ion ingress, with a 2mm application providing the equivalent of >100mm concrete cover against chloride diffusion and carbonation. Intercrete 4841 is approved for use to AS/NZS:4020 2005.

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