

Project Profile - Utilities



PROJECT

Pirbright Reservoir, Surrey

SUMMARY

Reinstatement of concrete cover on reservoir soffits

PRODUCTS

Cementitious Coating 851

CLIENT

Affinity Water

CONTRACTOR

Concrete Repairs Limited

BACKGROUND ►

Pirbright is a small village near Woking in Surrey and is surrounded by heathland, much of it owned by the Ministry of Defence and used by the Pirbright Army Training Centre. An underground reservoir is situated within the grounds of the Army Training Centre. The reservoir is operated by Affinity Water which supplies high quality drinking water to communities within the South East of England. Affinity Water is the largest water-only supplier in the UK, providing 900 million litres of water each day to a population of more than 3.5 million people and 1.4 million properties.

Pirbright Reservoir is one of 100+ water treatment facilities operated by Affinity Water. Due to the aggressive nature of the water in the reservoir, the steel reinforcement and aggregate in the cement matrix were clearly exposed on the soffits. As part of Affinity Water's infrastructure management, a high performance solution was required to reinstate the concrete cover.

THE SOLUTION ►

Cementitious Coating 851, a two component, waterborne cementitious modified polymer coating, was chosen for this application as it has an excellent track record of use in the clean water industry, is approved under Regulation 31(4)(a) for use in contact with drinking water and benefits from CE marking in accordance with BS EN 1504. It forms a hard, highly alkaline coating which not only protects concrete from the effects of aggressive acid gases, moisture and chlorides, but also has greatly enhanced chemical resistance to soft water. **Cementitious Coating 851** provides reinstatement of effective cover on reinforced concrete and a 2mm coating is equivalent to 100mm of good quality concrete. **851** also provides exceptional waterproof protection, resisting positive and negative pressure under a 100 metre head. Being cement based, it chemically reacts with the substrate to form an integral part and will have a design life equivalent to that of the concrete to which it is applied.

Cementitious Coating 851 is available in both grey and white, of which the white version was used for this project. When white is used as the top coat, only 7 days' cure is required before water facilities can be returned to normal service. This is a distinct advantage as alternative products typically require 21 days' cure.



FM 41091
EMS 597350
OHS 597351

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