CC HYDRO™
Containment on a Roll

REMEDIATION

Project Info

- 11 / 04 / 23
- CCHT2™ Bulk Rolls
- 9,600m²
- Transverse and Longitudinal layers
- Qatar
- Qatar Engineering Material Solutions WLL
- CCHT2™ was used to remediate an evaporation pond, providing containment and extending operational life.

Completed installation

In April 2023, the CC Hydro GCCB* was used to remediate an evaporation pond in Qatar. The client required the permanent evaporation ponds to capture both rain and contaminated water, mitigating any potential contamination of the ground and flooding around sensitive structures.

The evaporation pond was designed to capture rain-water during a 1/100 year storm event and was lined with a waterproofing membrane. Overtime, damage to the membrane led to water seepages causing contamination of the surrounding area. To resolve this issue, the client planned to remediate their evaporation pond to improve its containment function.

A number of solutions were proposed to remediate the evaporation pond, including the relining of the pond with another waterproof liner. However, potential damage from hoses and other hardware posed a risk to seepage issues returning so was dismissed. CCHT2™ was chosen to line the pond due to the materials chemical resistance to hydrocarbons, puncture and having a low permeability.

*Geosynthetic Cementitious Composite Barrier

CONCRETE CANVAS®
+44 (0) 345 680 1908
info@concretecanvas.com
www.concretecanvas.com

Completed installation

Prior to installation, work was carried out to remove the existing liner. Once the liner was removed, sand was laid, wetted and compacted to create a uniform surface. When preparations were completed, Bulk Rolls of CCHT2™ were deployed vertically down the slope, with the material cut to length. At the base of the pond, the material was deployed in a longitudinal layup with the edges secured within a shallow perimeter intermediate anchor trench, which was backfilled with concrete mortar. Each layer of CCHT2™ was overlapped to the 30mm pre marked guidance line and cleaned of any contaminents. Once cleaned, each layer was thermally welded using an automated hot air welder. To prevent wind uplift, the leading edges of the material were secured within anchor trenches at the crest of the pond using galvanised pegs and backfilled.

During hydration, a 96,000 litre water tanker with hose was used, with the material re-hydrated every 2-3 hours. Temperatures during the installation ranged between 30-40°C. To prevent the material from prematurely curing, CCHT2™ was hydrated at night.

The project was completed in 53 days, with 9,600m^2 of CCHT2™ installed by 15 technichians and an additonal 10 labourers working 10 hour days. The client was pleased with the project, with the CCHT2™ meeting their expectations and have looked to use the material for further projects within their facility.

+44 (0) 345 680 1908
info@concretecanvas.com
www.concretecanvas.com