KARIBA DAM PLUNGE POOL REHABILITATION

COUNTRY: ZAMBIA
DATE: February 2020

PRODUCT USED: CHRYSO®Aquabenton ZA, CHRYSO®Omega 162, CHRYSO®Fuge B, CHRYSO®Dem S, duralatex, duragrout

DESCRIPTION

The world-class project at Kariba Dam will see the building of a temporary coffer dam downstream of the main wall, allowing the deep plunge pool to be drained, reshaped and stabilised. This will reduce the backward scour in the pool, created by water released by sluices in the dam wall; the concern is that this scouring is edging towards the dam foundations.

Among the range of CHRYSO solutions provided by Mart Solutions is CHRYSO® Omega 162 superplasticizer, which is an important component of the concrete mix design for the seven piers. These large pier structures will range from 250 tons to 700 tons in weight. The first of these, currently under construction, will measure 5.5 metres tall when complete.

“CHRYSO® Omega 162 reduces the need to add extra water, and so increases the durability of concrete. This admixture also improves cohesion and lowers viscosity in the concrete mix, leading to improved homogeneity and superior off-shutter finishes.

Facilitating the release of formwork from the concrete piers is CHRYSO® Dem S, a versatile mould-release oil for timber or steel. Mart Solutions is also supplying the Kariba project with construction chemicals from CHRYSO’s a.b.e. range. The polymer bonding liquid a.b.e. duralatex is applied to the cone holes in the piers, and these holes are then filled with a.b.e. duragrout – a non-shrink grout for sealing.

PROJECT TEAM

- Client: Zambezi River Authority
- Contractor: Razel-Bec
- CHRYSO Product Supplier: Mart Solutions