



Madushan Dam – Repair

Yunnan Province, People's Republic of China
2010

BACKGROUND

The Madushan dam is located on the Red River in Yunnan Province; it provides electricity to hundreds of thousands of people.

When cracks in the dam's concrete walls began to surface due to the immense hydrostatic pressure, the structure's owners knew they were up against a massive challenge. The dam needed to remain in service, making planning and co-ordination difficult for trades. In addition, the owner had concerns that traditional membrane waterproofing and polyurethane coating systems wouldn't be effective or easy to use due to inclement weather on-site. The owner was also already moving forward on an expansion project on the dam, building additional infrastructure and increasing its overall capacity. It would be a busy site, and repair work needed to happen as quickly, efficiently and effectively as possible.

SOLUTION

The construction team chose Hangzhou Guo Dian Dam Safety Engineering Co, Kryton's distributor in China, to provide Krystol T1 and T2 – a surface-applied crystalline slurry coat system – as well as Krystol Waterstop Grout for the joints and cracks.

Kryton products were selected because the repair team recognized the Kryton Waterproofing System would not only fix the cracks, but would increase the resistance of chloride penetration into the concrete and improve the structure's overall durability.

A total of 12,000 square metres of concrete were treated with approximately 40 tonnes of Kryton's T1 and T2 system.



The Madushan Dam provides electricity to hundreds of thousands of people.



Crews applied T1 and T2 to the dam's walls to prevent water leakage and increase the durability of the structure.

OWNER

Red River Guangyuan Hydropower Development Co. Ltd.

DISTRIBUTOR

Hangzhou Guo Dian Dam Safety Engineering Co

PRODUCTS & SPECIFICATIONS

Learn more at www.kryton.com

Krystol T1®/T2®

Krystol Waterstop Grout™



Before crews could start waterproofing, more than 1.3 million cubic metres of earth were excavated.