On the back of its phenomenal local and African success, chemical sealing specialist, Liquid Waterproofing Group, is looking to infiltrate international markets, says director Henk Erasmus.

Established in 2000, the company, which employs close to a hundred highly skilled specialists, has developed and refined its chemical sealing technology over the past 15 years. It believes that the tight economic conditions are a key driver for companies, particularly struggling mining houses, looking for accurate and speedy water-sealing solutions.

Liquid Waterproofing notes that its highly successful and locally developed product range will do well in international markets, particularly in large-scale infrastructure projects, including mining, dam-building and tunnelling projects.

The company is already receiving numerous enquiries for its patented chemical sealing products, which have been used successfully in a number of local and African mining operations, including the sealing of water-bearing fissures at Anglo Platinum’s Amandelbult operation in the North West province; at diamond miner De Beers Finsch mine; and at BHP Billiton’s Hotazel manganese mines in the Northern Cape.

The company also worked on the Mopani copper mines in Zambia, where a fissure intersecting a new shaft was successfully sealed ‘in the shortest possible time’.

“There are many new mines being developed in Africa, especially in Mozambique and Botswana. We would like to expand our product offering into these regions as well,” says director Willem Visser.

HIGHLY RECOMMENDED

Interestingly, the company comes highly recommended by Clifford Elphick, CEO of diamond producer Gem Diamonds, who, after unsuccessful attempts at sealing a...
massive fissure at its new Ghaghoo diamond mine in Botswana, turned to Liquid Waterproofing for a solution.

“During the Ghaghoo mine development, the project team unexpectedly encountered a massive fissure, which, when blasted, decanted 500,000 litres of water per hour into the construction area. Unfortunately, all attempts at conventional cement grouting over a period of nine months had failed, primarily because the cement washed out before it had an opportunity to set. In July 2015, Liquid Waterproofing was contacted, and, within a month and a half it had successfully sealed the fissure, enabling mine construction to continue,” says Erasmus.

Explaining the sealing process, Erasmus explains that the company investigated, drilled and successfully injected its own blended chemical sealing solution into the fissure area, thereby permanently sealing it and enabling the diamond producer to continue mine development.

“It has been very pleasing for us to have overcome the challenge posed by the water ingress from the fissure in a relatively short space of time once Liquid Waterproofing had been brought in after several months of attempting to resolve it with conventional cement grouting,” says Elphick.

As a result of its success for the sealing of level one underground mine development, Liquid Waterproofing has subsequently been contracted to undertake further water-sealing solutions during the Ghaghoo mine construction.

“It is astonishing how little knowledge the mining sector has about the advantages of chemical grouting and water-sealing. One of the key benefits of chemical sealing is that fissures sealed with chemical grouting last the length of the life of the mine, and, in fact, chemical sealing used on mining operations in 1977 remains tightly sealed to this day.”

He adds that often there is a misconception in industry that chemical sealing is extremely expensive, however, relative to the time savings, the product can well be considered to be cost-effective in the long run.

“A chemical grouting application can, in most cases, be done in 30% of the time compared with cement grouting, which leads to major cost savings. With Liquid Waterproofing’s chemical sealing products, we can accurately predict the watersealing results, unlike cement grouting, where it is difficult to do so,” he states.

In addition, the environmentally friendly water-based chemical solutions are extremely safe and have been well tested by the CSIR for toxicity, he adds.

**SOLUTIONS PROVIDER**

The company’s solutions offering extends to water treatment plants, basements, concrete dams, lift shafts, silos and concrete pipes, collars and valve chambers.

In fact, the water-sealing specialist has provided solutions to civil engineering water leakages, including large-scale tunnel development projects, such as the multi-billion rand Gautrain rapid rail transport system’s tunnel development in Gauteng, and sealing solutions for the Drakensberg Pumped Storage Scheme in KwaZulu-Natal (KZN).

For the Gautrain project, the Bombela Concession company contracted Liquid Waterproofing group for its chemical sealing solutions on the 20km tunnel extending from Park Station, in Johannesburg, to Marlboro Station. One of the key challenges on the Gautrain tunnel development was the fact that the passenger rail system was already operational when the sealing specialist was called in to seal tunnel leakages.

The company, which has headquarters in Gauteng, has branches in Durban, in KZN, and Cape Town to service customers across the country.

“Chemical sealing, a largely unknown solution, is gaining popularity because it seals where other products fail,” concludes Erasmus.