BACKGROUND

As the major passageway connecting Kunming, the capital city of Yunnan Province, with the South West area of the province, Yuanmo Highway is playing an important role of enabling the province a sustainable economic growth. With two tunnels to separate traffic flow from each direction and each tunnel having two lanes, the 6597 meter long Dafengyakou Tunnel is the controlling part of the highway with the construction budget exceeding 1500million RMB. The Tunnel runs across the Ailao Mountain Area under harsh geographic conditions which makes the construction extremely difficult.

The whole tunnel was finished and connected in May 2003 and was put into trial use at the end of 2003. Since the sidewalls and arch crowns suffered severe leakage, the bottom part the tunnel remains wet and slippery all year long due to the water running out or dripping down, which greatly affects the traffic flow. In July 2003, The owner of the tunnel decided to spend 2 months to fix above problems by focusing the repairs on the most sever leaking parts from section K241 to K242.

SOLUTION

1. Removed the previous fire-resistant coatings first and then thoroughly flush the surface using high pressure water to get rid off the dirt and loosen materials.
2. Chiseled out the leaking points, stopped running water and fixed the leaking problem by using Krystol Plug (50kg), Krystal T1 (2000kg) and Krystal Baricote (100kg).
3. Applied Krystal T1 at 1kg/m2 to the whole surface under SSD condition.
4. Wet cured the repair area for 2 days.

The leaking problem was eliminated almost completely, which brings great social and economic benefits and makes both the owner and applicator satisfied.

City
Yuanmo, Yunnan province

Country
China

OWNER
Yuanmo Co.

APPLICATOR
5th company under 5th Bureau of China Railway Co.

DISTRIBUTOR
A & G Rockbolt Ltd.