



Epoxy Putty Case Study

Scottish Dam Concrete Flood Defence Wall Repair

Gaps left when an ineffective sealing compound washed out of a new flood defence wall are resealed at a multimillion pound dam project in Scotland



The original sealing compound between concrete slabs had washed out of the flood defence wall, with the resulting gaps packed with AB Original



Gaps in the concrete floor submerged by flood water were also sealed thanks to the underwater curing properties of AB Original

Defect

A large earth storage dam and concrete flood defence walls had been constructed in a Scottish valley at the confluence of three rivers. The project protected three towns and a railway connecting them from flooding.

The walls were made of concrete slabs sealed by a grout compound. Not long after completion and flood water began washing away the grout, leaving huge gaps and large-scale leaks in one section of wall.

Solution

A civil engineering company were called in. They decided the best solution was resealing all gaps in the wall using **Sylmasta AB Original Epoxy Putty**.

45kg of AB Original was delivered to site in 200g sticks. Each stick was mixed by hand and forced into the gaps between slabs whilst soft.

With its underwater adhesion properties, AB Original easily bonded to the saturated concrete and parts of the flood defences submerged by escaping water, including gaps in the floor.

Once cured, the putty formed a rock-hard, watertight material much more effective than the original grout compound, completing a permanent repair.

Result

With its superior adhesion and strength, using AB Original to replace the sealing compound provided a long term improvement to the flood defence wall.

The alternative to a repair with AB Original would have been a costly rebuild or reinforcement of the entire wall, only a few years after the expensive project had been completed.