

Epoxy Putty Case Study

Coal Mine Repair Cracked C6 Concrete

A coal mine in Australia make superficial repairs to C6 concrete footings and walls after subsidence caused cracks and unsightly surface damage to appear



Areas of C6 concrete which had crumbled away from footings because of ground movement at the mine were rebuilt using AB Original Epoxy Putty

Defect

Initial surveys assessing the potential stability of the mine before construction suggested low-strength C6 concrete would be suitable for above ground, non-load bearing applications like walls and footings.

But once coal production began, the ground started moving more than expected. Within five years, cracks were appearing and chunks of C6 crumbling away.

Whilst the mine was structurally safe and required no remediation, the owners wanted to make superficial repairs to improve the appearance of the concrete.



AB Original sealed and filled all visible cracks in walls and other concrete structures

Solution

10kg of **Sylmasta AB Original Epoxy Putty Sticks** were delivered to site. The mine maintenance team attended known areas of concrete damage, cut enough putty from the stick and kneaded it by hand.

Whilst soft, AB Original was forced into gaps or cracks until they were filled. Where C6 had broken away, the putty was shaped, moulded and applied to replace and rebuild missing concrete.



Smoothing off AB Original with a little water disguised the repair so it was impossible to tell the difference between the original concrete and epoxy putty

Once applied, AB Original was smoothed off with a little water to give it a concrete-like appearance. The final repair was so seamless, it was impossible to tell the difference between original concrete and putty.

Result

All damage was repaired in two days. The mine were pleased with the cost saving compared with replacing the concrete - especially as new installations would have been at risk from future subsidence.

Sylmasta are continuing to work with the mine on solutions for making more superficial repairs with further ground movement likely.