

Project Profile - Buildings & Commercial Construction



PROJECT

**Byker Wall,
Newcastle upon Tyne**

SUMMARY

Concrete repairs and decorative protection of balcony soffits and supporting beams totalling 2,500m²

PRODUCTS

**Steel Reinforcement Protector 841
Monomix
Monodex Ultra**

CLIENT

Your Homes Newcastle

CONTRACTOR

Keepmoat - Main contractor

Gunite (Eastern) Ltd -
Sub-contractor

BACKGROUND ►

Byker Wall is a long unbroken block of 620 maisonettes in the Byker district of Newcastle upon Tyne. Designed by architect Ralph Erskine and originally constructed in the 1970's, its innovative design is focused on preserving community networks and it was specifically designed to shield the estate from a proposed (but never built) motorway. Each letterbox, garden gate and door number is not just a standard fitting but one specifically designed for the project. Its styling with textured, complex facades, colourful brick, wood and plastic panels and relatively low-rise construction represented a major break with the high-rise architectural orthodoxy of the time.

As a result Byker Wall is hailed as one of the most significant pieces of architecture of its era in the UK. Its visionary design has earned it many awards such as the Eternit Award and the Veronica Rudge Green Prize for Urban Design from Harvard University. In 2007, Byker Wall became a Grade II* listed building in recognition of its outstanding architecture.

THE SOLUTION ►

Byker Wall underwent a major £26 million refurbishment programme to restore the residential properties to their original high quality. Improvements over two years included new roofing, windows and doors to 400 flats and maisonettes, work on communal areas and repainting in line with the original colour scheme. Flexcrete products were specified for the repair and reinstatement of the concrete to the balcony soffits and supporting beams.

Following thorough preparation, all exposed steel reinforcement was treated with **Steel Reinforcement Protector 841**. Areas of spalled and removed concrete on the balcony soffits, edges and supporting beams were built up with **Monomix**, a high performance, low sag, waterproof structural repair mortar which can be applied up to 80mm in a single application. Pre-packaged only requiring the addition of clean water on-site, it offers low permeability to water, even at 10 bar pressure, and very high diffusion resistance to acid gases and chloride ions. A final, decorative anti-carbonation finish was achieved by applying **Monodex Ultra**, a cost-effective, minimal VOC, waterborne coating which offers high diffusion resistance to carbon dioxide. **Monodex Ultra** is available in a range of aesthetic colours and light grey was chosen for this project.



FM 41091
EMS 597350
OHS 597351

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