

Project Profile - Buildings & Commercial Construction



PROJECT

**Teikyo School UK, Wexham,
Buckinghamshire**

SUMMARY

Concrete repairs and anti-carbonation, decorative protection of the external walls of two accommodation blocks

PRODUCTS

**Monolite, Bond-Prime, Monodex
Smooth**

CLIENT

Teikyo School UK

MAIN CONTRACTOR

Takenaka Construction

SUB-CONTRACTOR

TC&D Construction

BACKGROUND ►

Teikyo School is an independent boarding school for male and female students aged between 15-18 years and all students originate from Japan. Founded in 1989, the school is set in 20 acres of rural grounds in Buckinghamshire and the site will be familiar with many of those with a long background in the concrete industry as it was formerly the primary training centre for the Cement and Concrete Association (C&CA). Known as the Fulmer Grange Conference and Training Centre and remembered by many with nostalgia for the food and camaraderie, this residential facility was first constructed in 1967. The concrete was made in white cement and was largely board-marked, except for the use of exposed concrete blockwork, the grey blocks contrasting with white concrete.

Although the former C&CA Training Centre was built to the highest standards of concrete durability and it was originally perceived that no coating works would be required, significant remedial work was needed to two accommodation blocks in 2015. As a result of concrete spalling on pre-cast panels due to the harmful effects of carbonation over the years, extensive concrete repairs were required, as well as coating of the external walls for decorative and anti-carbonation protection.

THE SOLUTION ►

Monolite, an ultra high build, lightweight cementitious mortar, was specified for the concrete repair work. Able to be applied by trowel up to 100mm in a single application, it is ideal for the cosmetic repair, rendering and profiling of concrete and is suitable for overhead, vertical and horizontal applications. With excellent low sag properties, **Monolite** is supplied as a single pack product and only requires the addition of clean water on-site. It is simple and safe to use and because it is waterborne, non-hazardous and virtually odourless, it can be safely applied in sensitive or confined areas, so there was absolutely no disruption or inconvenience to students during the refurbishment work.

In order to seal and consolidate the substrate, **Bond-Prime** was applied before the application of **Monodex Smooth**, a high performance, water-based, high build decorative coating, to the complete external façade. **Monodex Smooth** offers high diffusion resistance to carbon dioxide, providing excellent protection from the effects of carbonation. The concrete repair and coating system has transformed the external appearance of the school's accommodation blocks and will provide excellent waterproof and anti-carbonation protection for at least 15 years before first maintenance is required. **Monodex Smooth** is available in a range of colours, of which magnolia was selected for this project. Like **Monolite**, **Monodex Smooth** is CE marked in accordance with the demands of BS EN 1504, the pan European standard for concrete repair.



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