

# CASE STUDY

## Back to School: Francis Holland School Restoration Using webercem R4 duo

resapol®

### PROJECT OUTLINE

Having stood on Sloane Square in London for the majority of its 142-year history, leading independent all-girls school Francis Holland School had started to look a little worse for wear as cracks appeared on its façade.

The cracks, positioned around the building, varied in size and depth and had likely been caused by surface erosion and weathering that is often seen in older structures.

### THE SOLUTION

To address the repairs, a product that could be applied both vertically and horizontally as well as being used for deep repairs, smoothing and levelling was required. Resapol London was appointed as the preferred supplier and approached Weber to source suitable products for the repairs.

As a two-in-one R4 repair mortar and R3 fairing coat, webercem R4 duo can be applied by hand to make structural repairs and create a smooth paint-grade finish. It was developed to provide specialist contractors with just one product that can be used for both repairs and finishing depending simply on the volume of water used in the mix.

### PROJECT DETAILS

**Project Name:** Back to School:  
Restoration Using  
webercem R4 duo

**Location:** Francis Holland  
School, London

**Start Date:** June 2022

**End Date:** July 2022

**Contractor:** Apolodor Ltd

### Product Requirements

- Deep repairs, smoothing & levelling
- Vertical & horizontal application
- Easy to use

### Product Solution

- Works as a repair mortar & fairing coat
- Ideal for high overhead repairs
- Easy to achieve a smooth surface as a fairing or finishing coat



REPAIR MORTAR  
& FAIRING COAT



HORIZONTAL &  
VERTICAL APP



EASY TO USE

## FULL CASE STUDY

Having stood on Sloane Square in London for the majority of its 142-year history, leading independent all-girls school Francis Holland School had started to look a little worse for wear as cracks appeared on its façade.

The cracks, positioned around the building, varied in size and depth and had likely been caused by surface erosion and weathering that is often seen in older structures. The school decided that the building was in need of some TLC and enlisted the help of Marnie Construction.

The school, which was attended by actress Sienna Miller and model Cara Delevingne, is The Sunday Times Independent Secondary School of the Year 2023, so it was especially important that repairs were done thoroughly and professionally.

Repairs were needed on a range of building materials including brick, concrete and lime-rendered finish, with the worst affected areas towards the top of the building. Having found themselves with the challenge of having to tackle such a diverse range of repairs, Marnie called on support from concrete repair specialists Apolodor Ltd.



To address the repairs, Apolodor needed a product that could be applied both vertically and horizontally as well as being used for deep repairs, smoothing and levelling. Resapol London was appointed as the preferred supplier and approached Weber to source suitable products for the repairs.

Once the six-level scaffolding was in place at the school, Resapol's sales manager Tom Brown and Weber's technical sales manager Tony Bartlett conducted a hammer test around the building to determine the extent of the damage. From this, it became clear that more work would need to be done than initially thought, as there were some structural as well as cosmetic issues.



Prior to the launch of webercem R4 duo in 2022, it's likely that a number of types of product would have been needed for a project like this. However, it was possible to repair all of the damage to Francis Holland School using only webercem R4 duo.

As a two-in-one R4 repair mortar and R3 fairing coat, webercem R4 duo can be applied by hand to make structural repairs and create a smooth paint-grade finish. It was developed to provide specialist contractors with just one product that can be used for both repairs and finishing depending simply on the volume of water used in the mix.

It is ideal for structural concrete repairs, particularly where high, overhead repairs are required – as was the case at Francis Holland School. It can be built up to a 75mm thickness for both vertical and soffit repairs in just one application when used as an R4 repair mortar, and the levelling properties within the product formulation make it easier to achieve a smooth surface as a fairing or finishing coat.

Once the application of webercem R4 duo was complete, masonry paint was applied. The job was completed within one month in the summer of 2022.

# PRODUCT IN FOCUS



## WEBERCEM R4 DUO

### LIGHTWEIGHT, HIGH BUILD MORTAR FOR OVERHEAD AND VERTICAL REPAIRS

- Dual purpose product that can be used as a repair mortar and/or fairing coat
- High build properties – up to 75mm vertically and 75mm in an overhead repair, without formwork when used as an R4 mortar
- Easy to apply, with excellent application properties
- When used as a fairing coat 3mm of coverage provides as much protection against CO2 diffusion as 30mm of low permeability concrete or 300mm of high permeability concrete

### Where to Use:

- Structural concrete repairs, particularly where high, overhead repairs are required
- Repairs to concrete structures and members such as bridges and coastal assets
- As a smoothing treatment for concrete surfaces

### Things to Consider:

- Do not apply when temperatures are below 5°C or above 35°C, in direct sunlight or on hot or frozen surfaces.
- When stored unopened in a dry place at temperatures above 5°C, shelf life is 12 months from date of manufacture printed on the side of the bag.