

BELZONA REBUILDS NOT ONE BUT TWO 250-YEAR-OLD STONE STAIRCASES

ID: 8585



PROBLEM

The stone staircases had been shuttered over during a major refurbishment, during the final phase the shuttering was removed, and it was quickly realised that the condition of the staircases was a serious Health and Safety issue. Another major concern was that access to the upper floors was still required to complete the remaining works. Both staircases required a fast, effective and long-lasting repair that could be completed and cured in quick time, therefore allowing for the completion of the project with minimal disruption and on time!

APPLICATION SITUATION

The first staircase was badly worn from 250 years of use, making them a health and safety concern. Some steps had worn up to 40mm in the centre. The second main feature curved staircase had previous historic repairs that had failed again also making this feature staircase a health and safety concern. Both staircases were built in stone with wrought iron balustrades.

APPLICATION METHOD

The steps were worn smooth, therefore, the surfaces needed to be roughened with a grinder. Wooden shuttering, coated in Belzona 9411 Release Agent was laser aligned and installed to ensure the correct level to each step. Each step was then coated with Belzona 4911 TX Conditioner prior to the application of Belzona 4131 Magma Screed. The main feature steps had to be reinforced with perforated mesh as there was a 30mm overhang to be incorporated into the repair.

BELZONA FACTS

The steps were completed during the evening once other trades had finished for the day. This allowed for the Belzona 4131 Magma Screed to cure overnight allowing the steps to be used the following morning. Using Belzona allowed for full access during normal working hours, therefore ensuring the project was not delayed and finished on time.

INDUSTRY

Buildings & Structures

LOCATION

Essex, UK

APPLICATION DATE

August 2021

PRODUCTS

Belzona 4911 (Magma TX Conditioner)
Belzona 4131 (Magma Screed)
Belzona 9411 (Release Agent)

SUBSTRATE

Stone

PHOTOS

1. Worn stone steps of upper staircase prior to application showing wear up to 40mm in the centre of the step.

2. Wooden shuttering in place steps conditioned and Belzona 4131 being applied.

3 The main staircase during application, showing the perforated mesh reinforcing sheet over the failed historic repair.

4. Upper staircase application completed awaiting covering and grip nosings.

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