

Belzona Seals Concrete Leak in External Stairwell to Protect Hospital

ID: 10098

Industry: Commercial Facilities

Customer Location: Houston, TX

Application: WPA-Wall Problem Areas

Application Date: January 2025

Substrate: Concrete

Products: Belzona 3121 (MR7), Belzona 4131 (Magma-Screed), Belzona 4911 (Magma TX Conditioner), Belzona 9611 (ES-Metal)

Problem

Our valued hospital customer encountered a critical challenge with persistent water leakage infiltrating the building's interior. This issue created hazardous working environments for patients and staff, fostering mold growth that posed health risks, and accelerating structural degradation that compromised the facility's integrity and safety.



This image shows the leak externally in the vertical and horizontal joint of the wall.



This is a close up on the 3121/9331 repair on the horizontal and vertical joints, after the job was completed.



Close up on the vertical joint after the application was completed.



Close up image of the repair in service about 1 year later. Performing well, no leaks!

Application Situation

Prior attempts at repairs utilizing in-house personnel and low-cost materials proved ineffective, leading to substantial waste of financial resources, time, and operational efforts. Additionally, the risk of mold growth in a hospital environment presents severe health hazards, particularly to immunocompromised patients. Belzona's specialized products effectively halted the active leakage and delivered durable, long-term protection by sealing the affected joints. The repair has remained in service without any issues for over one year, underscoring the solution's reliability and efficacy.

Application Method

1. Surface prep was done by using a handheld grinder with a 7" turbo cup diamond grinding disk attachment to roughen the surface.
2. Belzona 9611 was used to plug leaking defects in the vertical joint.
3. Belzona 4911 conditioner was applied on the horizontal joint.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

Belzona products are

FS 695214

manufactured under an ISO

ISO 14001:2015

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Management System.

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4. Belzona 4131 was applied on the horizontal joint to rebuild missing concrete and make a smooth transition for the 3121 application.

5. Belzona 3121 and 9331 were applied to composite patch the vertical and horizontal joints.

Belzona Facts

Belzona was chosen for its proven ability to deliver rapid, durable repairs on active leaks and contaminated surfaces where prior methods failed. Its epoxy composites allow in-situ application with minimal downtime, vital for hospitals to minimize disruptions. Unlike cheap in-house fixes, Belzona's surface-tolerant formulas bond to wet substrates, stopping leaks instantly and providing long-term protection against mold, degradation, and health risks to patients. This saved significant costs and time, with the repair issue-free for over a year.

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