Belzona Steps Up With Long Lasting Concrete Repair

ID: 7780

Industry:	*Commercial Facilities*	Customer Location:	*Washington, USA*
Application:	*WPA-Wall Problem Areas*	Application Date:	*October 2017*
Substrate:	*Concrete*		
Products:	*Belzona 4911 (Magma TX Conditioner) Belzona 4131 (Magma-Screed),*		

Problem

When the chiropractor bought the building to move his practice into, the previous owner had cut the handrails off which allowed for water to penetrate the concrete. Over several winters with multiple freeze-thaw cycles, several areas had broken out. The previous owner had a contractor come in and repair the concrete with what appeared to be a cementitious repair material. That repair only lasted less than 6 months before it began to crack and fall off.



Original damage with failing patch material.



Failed patch material removed.



Conditioner applied.



Belzona 4131 applied and finished.

Application Situation

Concrete stairs at the entrance of a chiropractic office. The previous owner had used the steps as a loading dock and had removed the handrails. This left an opening for water to soak in, and during the winter months the water would freeze, expand, and that resulted in the concrete breaking off. When the previous owner put the property up for sale, he had a contractor fix the damage, and a water-based cementicious material was used that did not bond with the original concrete, and ultimately failed.

Application Method

First step was to remove the failed repair material. With the use of a screwdriver, the majority of it simply popped off as there was no adhesion to the substrate. The rest of the loose concrete was removed until what remained was clean and firm. Belzona 4911 was brushed on with special care taken to get into the deepest crevices and cracks. Using some Belzona mixing boards as formers, Belzona 4131 was then mixed and packed into the voids and carefully finished with standard cement trowels to match the rest of the concrete steps. The Belzona repair was then covered with plastic as it began to rain to prevent the repair from discoloring. The following morning, the plastic and formers were removed. The application was carried out in accordance with Belzona Know-How System Leaflet WPA-4.

Belzona Facts

The previous repair didn't even last through one winter before starting to fall off as it only had a mechanical bond from the irregularities of the concrete. This also allowed more concrete to begin to break off as it was still allowing for water penetration. One year later, the Belzona repair still looks like the day it was done. As of July 2022, this application looks just as it did the day it was completed.

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

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