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FEATURED PROJECT

Specialty Coating

SINGLE-COAT ANTI-SLIP COATING FOR CONCRETE STAIRS

CUSTOMER
Riverside Properties

APPLICATION TEAM
Internal Maintenance Team

SYSTEM
Anti-Slip Coating

LOCATION
Massachusetts, USA

DATE OF APPLICATION
June 2020

SUBSTRATE
Concrete

PROBLEM

A manufacturing facility was experiencing degradation of the external concrete staircases into their building in the form of spalling and cracking. The staircase was also showing surface wear from a combination of age, road salt, and weather exposure. The facility wanted to resurface the damaged concrete while providing a non-slip and more aesthetically pleasing finish. Advanced FRP recommended their specialty flooring anti-slip coating system that would bridge existing cracks in the concrete and prevent further deterioration of the stairs, with the full system able to be installed in a single shift.

Figure 1 Staircase showing degradation and wear

SOLUTION

Advanced FRP Systems designed a non-slip flooring system, HDF-250 AS, that allows for a single coat application. Many industrial anti-slip floor coatings include a broadcast step where the aggregate is manually sprinkled over the surface. This step can lead to irregular hand broadcasting of the media and adds additional labor to the application process. HDF-250 AS is sold with the aggregate pre-mixed in the polymer, using ceramic fillers and aluminum oxide aggregate. It provides excellent abrasion- and abuse-resistance. After application of a penetrating primer, FRP 201 - OT, to reinforce the concrete and increase the adhesion value, HDF-250 AS was installed on both the horizontal and vertical faces of the stairs to provide a uniform appearance and a durable, anti-skid finish..

STEPS:

1. Concrete was pressure washed to remove dirt, debris and laitance.
2. FRP 201 - OT applied at 3 - 5 mils
3. FRP Repair Putty was applied over cracks and spalling concrete via trowel.
4. HDF-250 AS anti-skid flooring system applied via brush and roller at 25 - 30 mils.
5. System allowed to cure for 8 hours prior to foot traffic being allowed.

Figure 2 Application of HDF-250 AS Via Roller

BENEFITS

- The entire system was installed in less than 2 hours per stairwell.
- Fast cure means a return to pedestrian service in 8 hours at 70 °F
- 100% Solids, zero VOC and odor-free solution for sensitive areas
- Filled with ceramic fillers and aluminum oxide aggregate for the best resistance to wear
- Provides a permanent solution with a maintenance-free service life of over 50 years

Figure 3 Staircase After Curing of HDF-250 AS