

Loyola University Medical Center - Chicago, IL

PROJECT OVERVIEW

MAPEI's Planiprep Surface Preparation Products were used to clean and prepare post-abatement-treated hospital floors prior to installing new vinyl plank floor covering with Ultrabond ECO 360 high-performance adhesive.



PROJECT INFORMATION

Project Category: Hospital
MAPEI Sales Rep: Richard York
Project Owner: Loyola University Medical Center
MAPEI Distributor: Carpet Cushions & Supply
Tile Installer: Mr. David's Flooring International
Project Manager: Peter Standish
Project Size: 6,000 square feet



MAPEI PRODUCTS USED

- Planiprep SA
- Planiprep ET
- Primer T
- Planiprep SC
- Ultrabond ECO 360



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Proper Surface Preparation Ensures Durable Floor Covering Installation

A hospital renovation project at Loyola University Medical Center in Chicago, Illinois, ran into some difficulty when a post abatement vinyl plank installation began to fail in occupied patient corridors. The initial installation was repaired once, but this repair failed a second time due to what appeared to be exposure to remaining abatement chemicals (see photo of subfloor issue on lower right).

Destructive analysis of the failed areas revealed cracks in the substrate where presumably the abatement chemicals remained following the abatement procedure. Mechanical preparation of the substrate, and the cracks, was not possible as the hospital was an occupied environment, and both noise and dust were primary concerns of the hospital.

The subsequent layer of 100% solids epoxy used in the replacement floor covering not only isolated the abated substrate, but it also sealed off the cracks where the abatement chemicals presumably remained.

The installation was approximately 6,000 square feet in size. After consultation with MAPEI, the cleaning and surface preparation to remove the post-abatement chemicals was performed in phases of 1,000 square feet each, using Planiprep SA and Planiprep ET from the Planiprep Surface Preparation System. The corridor spaces were marked in halves lengthwise to allow for service use during the installation and to minimize disruption to the hospital staff.

On Day 1, the first area was prepared using the Planiprep SA material, a powerful, water-based stripping solution designed for preparing nonporous or chemically contaminated concrete surfaces (see photo upper right). Planiprep SA chemically etches the surface of clean concrete, promoting excellent adhesion for the subsequent application of Planiprep ET.

On Day 2, the cleaned surface was



capped with Planiprep ET, an ultra low-viscosity, two-component, penetrating 100%-epoxy treatment. Planiprep ET penetrates deeply into the prepared concrete surface, strengthening it and creating a suitable surface for direct application of all MAPEI adhesives that are approved for use on nonporous substrates. When used with Planiprep SA, Planiprep ET provides subfloor moisture emission control up to 12 lbs. (5,44 kg) and 92% relative humidity (RH) without the need for shotblasting the concrete surface.

Also on Day 2, the next area in the renovation was prepared using the Planiprep SA. This process allowed 2,000 square feet of the project to be worked on each day, with a net result of 1,000 square feet being completed per day.

Primer T, was then applied to the finished floor. Suitable for a wide variety of substrates, Primer T combines excellent versatility with an easy, low-odor application to enhance adhesion. Planiprep SC was applied next to skimcoat and smooth minor surface variations and defects.

The new vinyl plank flooring was then installed with Ultrabond ECO 360 as part of a complete MAPEI System. Ultrabond ECO 360 has an excellent



open time, develops strength quickly, performs well under rolling loads and resists indentation. Its low volatile organic content makes it ideal for use in occupied buildings such as hospitals and medical centers.

There was virtually no down time during the entire cleaning, preparation and installation process. The new vinyl plank floor covering has been installed for about 15 months at the time of this case study, with no known issues of any kind.