

## Case Study: Meat Processing Plant

A meat processing plant in the old “stockyards” district of Chicago had an inspection coming up. The owner knew he needed to repair the flooring - or be fined. The concrete floor slabs in the more than 100 year old building were degraded and had the patchy remains of various types of coatings, unsuccessfully applied over the years. Much of the concrete was now bare and well-saturated with animal grease, soil and other contaminants. Plus, the slick surface was a serious threat to worker safety.



*Unsanitary floors with remains of failed concrete coatings.*

Many other types of flooring materials, albeit by other manufacturers, failed to perform under the harsh facility conditions. Thorough concrete preparation, correct product selection and experienced installation would be paramount – room for error was non-existent.

### The Challenges

The building owner could allow only a single weekend for concrete preparation, flooring installation and cure. Room and floor temperatures were kept cool – in the 45°- 55°F range. Typical floor coatings install best in temps over 55°F and generally, the colder the temperature, the longer the cure time needed. If that weren't enough, condensation kept the floor very moist nearly all of

the time. These special conditions severely limited the choice of suitable materials.

Typical for food and beverage facilities, the acids, salts and chemicals used during production were in the process of drastically reducing the life of the concrete. Cracks and other slab damage just made matters worse, and provided an ideal place for mold and pathogens to multiply. To help keep germs and grease buildup under control, a number of areas in the plant were regularly steam-cleaned. Unfortunately, this can cause disbondment of standard floor toppings. Most floor flooring simply cannot withstand that kind of thermal shock.

Finally, the highly contaminated substrate presented a critical adhesion concern. A moisture-tolerant, quick-curing, extremely “forgiving” floor coating system with a tenacious bond would be needed.

### The Solution

FloroCrete Urethane Mortar -- the number one flooring type favored by the food and beverage industry – was the answer.



*Hygienic, seamless FloroCrete Flooring w/ integral cove base.*

Depending upon which solvent-free, low emissions FloroCrete system is selected, the floor can be applied to properly prepared concrete with no separate primer step, cures in 6-8 hours, and can be quickly ready for full traffic with just a “bump” of extra catalyst.



*Canted cove-to-wall base, skillfully installed using FloroCrete.*

FloroCrete bonds to many substrates that other coatings simply reject. Tolerant of moisture, it can even be applied over damp slabs. Because it expands and contracts at a rate very similar to that of concrete, FloroCrete demonstrates excellent adhesion even during extreme temperature cycling, holding up well to steam cleaning.

No other flooring material possessing all these features, plus the superior chemical resistance needed for regular exposure to the acids and alkalis of food production. And thanks to its FloroSeptic antimicrobial properties, FloroCrete Flooring Systems support food facility pathogen control efforts.

## **The Implementation**

The highly experienced, Approved Florock Installer was able to degrease and mechanically prepare the floor overnight, then install FloroCrete HT/PT, RT and SLX in different rooms, based on the substrate condition, typical floor traffic and activity in the room. The floor-to-wall canted cove base was skillfully built with FloroCrete HT/PT and topcoated with SLX. Skid-resistance was customized in accordance with the building owner’s request. By adding a touch of catalyst to the blended liquids prior to application, the FloroCrete floors, despite cool curing temperatures, were ready for employees on Monday morning.

## **The Result**

Degraded and dangerous food processing facility floors were transformed to sanitary, safe and attractive new traffic surfaces in less than 72 hours. The inspection was passed with flying colors. A happy facility owner and a clean, safe meat processing environment for years to come!