

# INDUSTRIAL CASE STUDY

## POLYUREA UNDERLAYMENT



### SITUATION

In the world of construction, waterproofing can be one of the most critical aspects of a construction job. Waterproofing is especially important when laying commercial-grade tiling for pedestrian walkways or driveways for vehicles. A flooring underlayment serves as a barrier between a concrete foundation and a tile application placed on top. If water penetrates the surface and reaches the concrete substrate underneath, it can cause significant damage resulting in expensive and time-consuming repairs.

Since moisture is the biggest issue when laying a high traffic tile floor, an equally durable underlayment is required. In Mexico, several major infrastructure projects needed a commercial-grade, watertight, and cost-effective underlayment solution.



### SOLUTION

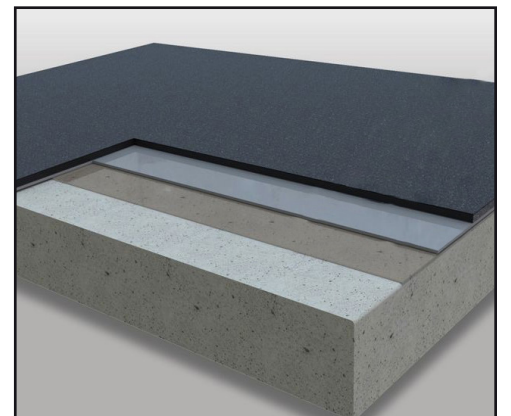
Familiar products of traditional underlayment methods are epoxy coatings or rubber or vinyl rolls. But in the long term, neither of these options is as strong, scientifically, or durable as polyurea.

When it comes to polyurea, few products are trusted more than LINE-X. The product can be applied quickly, with a fast cure time to keep construction on schedule. First, highly trained LINE-X applicators applied a specially developed two-component primer that promotes surface adhesion and prevents pin-holing. Then, a castable polyurea (CU-970) was applied to create a waterproof membrane and add stability to high traffic areas. Lastly, a final layer of pure polyurea LINE-X XS-310 was spray-applied at high temperature and high pressure. XS-310 is incredibly elastic which allows it to expand and contract with the concrete over time. A silica sand bed was added to create a textured surface for mortar and tile installation.



### RESULTS

Thanks to LINE-X, the concrete foundation is now much stronger with the addition of a polyurea underlayment solution. The concrete surface easily supported the construction process and provided an excellent surface for the adhesive mortar to form a strong bond. Now completed, the thoroughfare is ready to withstand the abuse from heavy automotive and pedestrian traffic, as well as harsh weather and other damaging elements.



**PROJECT OVERVIEW:** Concrete Waterproof Underlayment Process

**PRODUCTS USED:** CU-970, XS-310

**SOURCE:** LINE-X Mexico/Mega Coat



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