

EATON CENTRE – MONTREAL

A Unique Solution for Surface Preparation

The **Eaton Centre** is an 8-story building located in the heart of the business district of Montreal, originally constructed in 1929. It was sold in the late 1990's, and the new owner's plan called for the building to be converted to retail space from the 1st to the 4th floor. The last four floors would be converted into office space. The center of the original structure was gutted to create an atrium.

After ripping off the existing floor coverings, the owner found that the sub-floor was made of wood planks. The particular challenge of this project was that the old structure could not accommodate a typical concrete pour over the original wood planks without extensive engineering work, which would translate into a dramatic increase over the original budget. Also, the more traditional method of leveling using plywood and shims would have been time consuming and would not have provided an effective long-term solution. The challenge was to find a cementitious underlayment that could be used in a thin application and that would cure rapidly, while achieving high early compressive and flexural strengths. Most importantly, it should be cost effective and easy to apply.

The floor planks were secured with screws; then a heavy-gauge polyethylene sheet was applied, and a galvanized wire mesh was stapled to it. After laboratory testing and job site tests proved successful, PLANICEM 53 mixed with PLANICRETE PM was selected as the system that could do the work! More than 70,000 bags of PLANICEM 53 mixed with 58,000 gallons of PLANICRETE PM additive were used to cover **500,000 sq. ft.**

The innovative surface preparation approach using Planicem 53 and Planicrete PM allowed an application as thin as 16 mm (5/8"), yet it was capable of withstanding medium commercial traffic loads successfully. This was considered a breakthrough in surface preparation to everyone involved in the project. Even the cement finisher found it remarkable; he told the architect that he'd never seen a product like that. Imagine taking on heavy loads from construction equipment only a few days after pouring!

This solution for surface preparation also opened the door to supplying all floor-covering adhesives for the building in question. *Mapelastic™ SM, Ultracontact™, Ultracontact™ RS, Keralastic/Kerabond™ System, Granirapid® System* and *Keracolor™ S* were used to complete the surface preparation and to install ceramic tiles and top grade marble.