GENOA SAILS ON

When Genoa's most famous citizen, Christopher Columbus, discovered the New World, he unwittingly set in motion the long, slow decline of his native city. For world commerce shifted from the Mediterranean basin and the rich maritime republics which controlled it, Genoa and Venice, to the new centers of the Atlantic trade, Portugal, Spain, England and Holland.

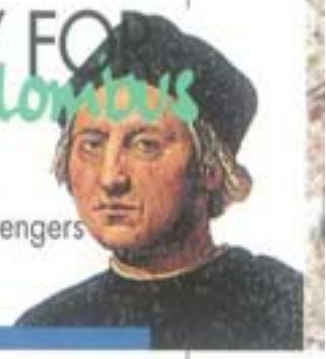
The old center of Genoa is contained within the boundaries of the former city walls that were built in 1300. It contains more than 113 hectares (279 acres) with 2,300 buildings divided into 13,000 dwellings in a tight network of narrow streets and alleyways. During the 1970's as shipping declined in the port of Genoa and new buildings went up on the surrounding hills, predominantly public housing projects, the city center began to lose population rapidly when it was already in need of renewal. In the last 30 years the buildings have continued to decay along with the social fabric. The lively city that had attracted celebrated travelers from Petrarch to Rubens through the centuries for its art and culture had become a sadly neglected ghetto.

The comeback

Happily things are starting to turn around in Genoa and Mapei products have played their part in the transformation. Mapei has long paid special attention to remodeling and urban renewal which naturally constitute a large market for construction materials. Modern technology, including formulas developed in the Mapei research laboratories, provides innovative methods and products for building the new and remodeling the old that would have been unthinkable only ten years ago. Following are four articles dealing with the Genoa of today, a city struggling to reinvent itself by reclaiming its dying urban core in what is hoped will be the catalyst for an economic and social comeback for the whole city.

The recently built Genoa Aquarium and the "City for Kids" described in the following pages may remind American (among other) readers of the Baltimore Inner Harbor renewal project and its contribution to the successful revitalization of that port city. Genoa hopes to do the same, as restoration (an example of which is described in "Restored to Life") spreads block by block into the old city, sparked by the new attractions in the harbor. The first article deals with the remodeling of an important element of modern Genoa's infrastructure, Christopher Columbus Airport.

A NEW DISCOVERY FOR Christopher Columbus

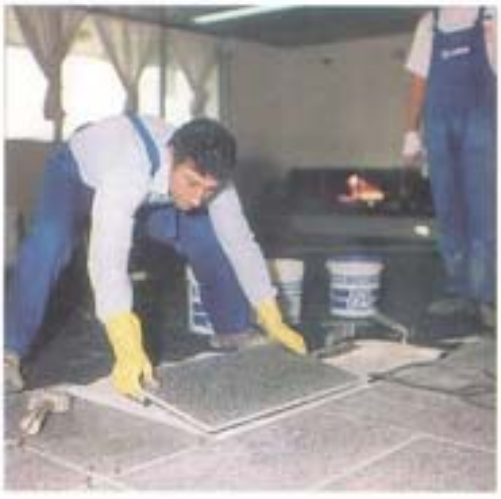


Christopher Columbus Airport in Genoa, Italy, discovered how to install a new granite floor in record time without interrupting the flow of passengers

by Natasha Calandrino

PHOTO 1

PHOTO 2



Doing renovations in public buildings can be problematic: if you put in a new floor without closing off the premises, it usually means a tough job for the installers, and if you shut down to make getting the job done easier, you inconvenience the public. How can you keep everybody happy? In the majority of cases the old floor has to be demolished to make way for the new one. However there are circumstances, like the one described below, where removing the old floor is not necessary. A new floor can be simply installed over the old one if the proper precautions are taken to make it bond perfectly.

Avoiding inconveniencing passengers at all costs was the main goal of officials at Genoa's Christopher Columbus Airport. They were dissatisfied with the terminal's badly worn rubber flooring and needed a solution that combined fast installation with long lasting results.

Bonding granite over rubber

To avoid blocking traffic in the terminal, the new flooring had to be installed directly over the old rubber flooring. An adhesive was needed that would bond strongly to both the old rubber floor and the new 30x60 (12x24") Sardinian granite tiles, an adhesive that would perform equally well with the two different materials. Mapei technicians recommended a solution that would meet this prerequisite and enable terminal traffic to continue

PHOTO 3

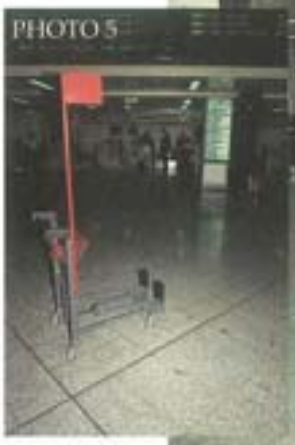


PHOTO 5


PHOTO 4

unimpeded while significantly shortening installation time. This was KERALASTIC, a two-part polyurethane adhesive that was ideal for installing the granite tiles directly over the rubber. KERALASTIC forms a flexible film without shrinkage that could absorb the movement of the granite over the rubber, as well as that caused by the substantial vibration to which the airport terminal is subject. After removing the surface wax and scrubbing the rubber with water and caustic soda, a layer of KERALASTIC was trowelled on (Photo 1), over which 7,000 sq m (75,341 sq ft) of Sardinian granite was laid (Photo 2).

Grouting the granite and sealing expansion joints

Such a large floor required the creation of expansion joints. The proper sizing of these joints was the first precaution to be taken. The size was calculated based on the rule that the maximum potential movement should amount to less than 10% of the width of the joint. After the joints were formed they were filled with MAPEFOAM, a compressible polyethylene foam cord that prevents the sealant from adhering to the bottom of the joint, taking full advantage of its flexibility.

The joints were then sealed with MAPEFLEX PU21, a two-part self-leveling polyurethane sealant (Photo 3), whose flexibility absorbs the movement in the joint. MAPEFLEX PU21 is recommended for use in heavily trafficked areas.
The entire floor was then grouted with KERACOLOR LARGE GRAIN, a pre-blended cement based grout for joints 4 to 15 mm wide. It is ideal for heavy traffic areas because of its high mechanical strength, easy cleanability, and excellent resistance to aging.

Record time without inconvenience

The granite floor was installed in record time and, most importantly, without inconveniencing the public. The excellent results were achieved not only thanks to an expert team of installers, but to time saving, high performance products (Photos 4 and 5). ❑

The Technical Data Sheets for the products mentioned in this article are contained in Mapei Binder No. 1, "Ceramic Tile Installation Products".

TECHNICAL DATA

Project: Christopher Columbus Airport, Genoa, Italy

Remodeled: 1995 to 1996

Contractors: VGM; Reggio Emilia, Italy

Project coordinator: Enrico Grassi, Mapei

Materials: Sardinian granite

Mapei installation products:*
KERALASTIC
MAPEFOAM
MAPEFLEX PU21
KERACOLOR LARGE GRAIN

*These materials are part of Mapei's European product lines