



The active photocatalytic principle

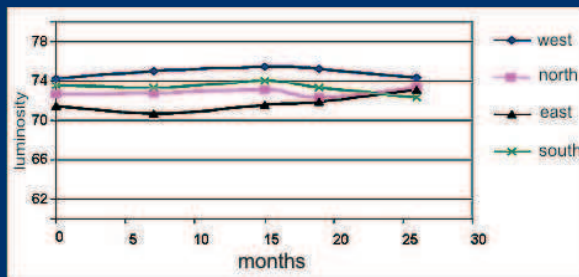
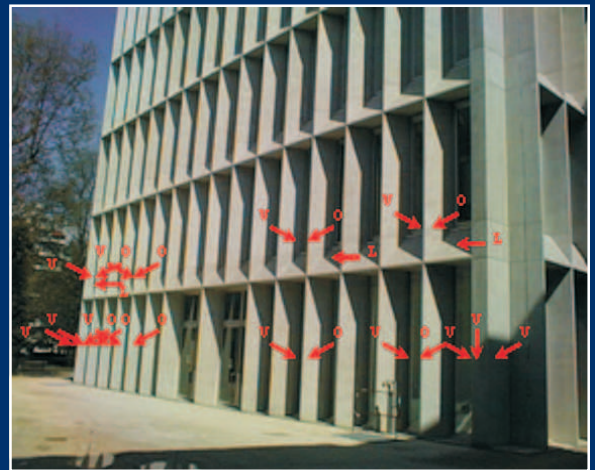
Preserving aesthetics: Chambéry

The self-cleaning action of photocatalytic cements

Photocatalysis can effectively contribute to enhancing the quality of life by abating the polluting substances present in the air and preserving the aesthetics of buildings.

One of the most impressive examples in this respect is the "Cité de la Musique et des Beaux-Arts" of Chambéry, France. For this work, built in grey photocatalytic cement, continuous colorimetric monitoring was decided to check color consistency over time.

Colorimetric monitoring is still in progress on two buildings and is specifically involving 191 points of measurement that are accurately distributed among the four cardinal points.



After thirty months' monitoring, results are excellent and the luminance values recorded over time have proved consistent, thereby confirming that color can be preserved.





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Preserving aesthetics: Rome

Dives in Misericordia Church Rome, Italy

Architect: Richard Meier
Owner: Vicariate of Rome
Year: 2003
Cement: white TX Arca®
Precasting firm: Edilgori
Supplier of TX Active®: Italcementi*

The American architect Richard Meier, winner of an international competition promoted by the Vicariate of Rome, designed the Dives in Misericordia Church, located in Tor Tre Teste, Rome. The church's three impressively and totally white sails, the tallest of which stands at 26 m, now soar over this low-key, isolated suburb of 10-story apartment blocks, which was lacking in both recognizable focal points and community spaces.

In order to avoid using a steel framework covered with white concrete panels – a solution that would not have endured the test of time - the self-bearing sails were subdivided into large, precast blocks with double curvature, weighing 12 tons each.



As the main technical sponsor, Italcementi had been following the progress of this project closely, by providing assistance with construction techniques and developing a type of concrete which, in addition to being highly strong and durable, would ensure unparalleled and time-enduring white to the built elements thanks to the self-cleaning properties of the final surfaces.

This was the first application of the photocatalytic principle called TX Active®.

**In Italy Italcementi is the leading manufacturer of cement with a market share of around 30%. Italcementi boasts approximately 5,000 employees and operates 18 all-integrated plants and 10 grinding centers. Italcementi is also active in the ready-mix concrete and admixture industries, with Calcestruzzi and Axim Italia respectively, as well as in the field of research applied to industrial plant design, engineering and technology through the Group's Technical Center CTG.*



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24121 Bergamo, Italia
www.italcementi.it



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Preserving aesthetics: Paris

Air France Headquarters Roissy-Charles de Gaulle International Airport

Architects: Denis Vallode and Jean Pistre
Owner: Air France
Year: 2006
Cement: white TX Arca®
Precasting firm: MSA
Supplier of TX Active®: Ciments Calcia*

The new building, accommodated inside the Roissy-Charles de Gaulle International Airport, is the prestigious headquarters of the French flag carrier, Air France.



For this building, which is located amid high concentrations of hydrocarbons from aircraft exhausts, a TX Active® rough surface finishing was selected for ensuring color uniformity across façades over time.

** As the French subsidiary of Italcementi Group, Ciments Calcia boasts 1500 employees and operates 9 cement-manufacturing plants, 1 grinding center and 8 sales agencies. Annual production exceeds 7 million metric tons of cement (1/3 of the French domestic market), which makes it the leader in the French cement industry.*



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Preserving aesthetics: Bordeaux

Hotel de Police Bordeaux – France

Architect: Claude Marty (Lacrouts
Massicaults SA Architects)
Owner: The French Department
of Interior
Year: 2003
Cement: white TX Arca®
Precasting firm: CIR in Tonneins
Supplier of TX Active®: Ciments Calcia*

Located downtown, the building is exposed to the aggressive action of pollutants that are typical of urban areas.

Right for preserving the aesthetic quality of the building, architect Claude Marty chose using TX Active® cement to manufacture the white, smoothly finished precast concrete panels for cladding façades.

The two-layered panels embedding white marble from Pi as aggregates feature polished finishing to increase the already typical luminosity of TX products.

A total of 750 panels, of which 700 white, cover a surface area of 5,400 m² of architectural precast concrete.



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Preserving aesthetics: Ostend

Commodore Ostend, Belgium

Architect: Luc Declercq - E & L projects
Owner: Municipality of Ostend
Year: 2005
Cement: white TX Arca®
Precasting firm: Decomo
Supplier of TX Active®: CCB*

As the first application of photocatalytic cement in Belgium, CCB, the Belgian subsidiary of Italcementi Group, chose the Commodore project, a prestigious multistory apartment building located in Ostend and designed by architect Luc Declercq with the support of the E&L Projects firm.

The façade of the first six stories are made of white polished concrete.

The building, situated by the sea, is notably exposed to the particularly aggressive action exerted by organic pollutants developing in moist areas. In this case, too, TX Active® will ensure that the final aesthetic appearance of the building is preserved.

**CCB is the northernmost industrial unit of Italcementi Group in Europe and is one of the leading players in the Belgian market for cement. CCB is active in the cement industry with the largest cement plant at Group level as well as in the ready mixed concrete and aggregates segments, boasting 11 concrete batching plants and 3 quarries.*



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Preserving aesthetics: Casablanca

Ciments du Maroc's Headquarters Casablanca, Morocco

Architect: Rachid Andaloussi
Owner: Ciments du Maroc*
Year: 2005

The building houses the headquarters of Ciments du Maroc, the Moroccan subsidiary of Italcementi Group.

The building, whose circular structure recalls the Group's spiral logo, was made with traditional concrete covered with a white mineral coating exerting the TX Active® photocatalytic effect.

Sun, and even the more so at these latitudes, is the staunch ally in the fight against organic pollution.



** Ciments du Maroc is the second largest cement manufacturer in Morocco. It boasts more than 1000 employees and operates 3 cement plants, 1 grinding center and 1 bagging facility. Through the subsidiary Betomar, which operates 4 aggregate quarries and 15 concrete batching plants, Ciments du Maroc is the leader in the ready mix concrete and aggregates industry.*



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