



An environmentally friendly TXActive[®]-based technological skin for ITCLab

The building housing the new ITCLab research center of Italcementi will be coated with white TXAria[®] cement based on TXActive[®], the active principle formulated by Italcementi that can reduce air pollutants. This choice is a logical continuation of another major work of art designed by Richard Meier and of which Italcementi Group was the main technical sponsor: the Dives in Misericordia Church in Rome. The aesthetic quality strongly demanded by Meier along with the durability requirements imposed by the building type had urged Italcementi to develop a new cement, based on TXActive[®], whose patented formula preserves the valuable aesthetic appearance of the finished surfaces on the one side and contributes to remarkably abating air pollutants on the other.

In the new building, the geometry of the slabs, also performing as sunscreens (brise-soleil), again demanded that Italcementi develop an ad-hoc type of fiber-reinforced, high-strength concrete capable of meeting the whole set of static strength, durability and time-enduring requirements of the structure. The white cement based on TXActive[®] can fully meet all of such structural and aesthetic requirements and will also be capable, under the action of sunlight, of accelerating the decomposition of polluting substances through photocatalytic oxidation processes.

Lightweight concrete slabs will be arranged to form a dense lattice of horizontal louvers in a fan configuration. These elements, of varying depths in relation to the sun screening action to be provided to the interior (lower heat input with consequent savings on the building's energy balance), complement and reinforce the huge glazed walls of the atrium from a design viewpoint.

Moreover, the exterior concrete skin protecting the wall portions made of acoustical frit and clear glass imparts a strong dynamic effect to the building in an ever-changing dialogue between interior and exterior spaces.