

TX Aria pollution-mitigating cement chosen as one of the finalists in the Construmat 2009 Awards for Technological Innovation

- ◉ *FYM's TX Aria® gained a special mention after being chosen as one of the competition finalists from a total of 54 candidates in the 'Best Construction Product' category.*
- ◉ *The product helps considerably reduce the number of damaging pollutants in the atmosphere, converting them into harmless compounds.*

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TX Aria® cement, which is manufactured and distributed in Spain by FYM, a subsidiary of the Italcementi Group, was selected as one of the five finalists in the 'Best Construction Product' category at the Construmat 2009 Awards for Technical Innovation.

The awards were handed out yesterday during the Construmat international fair, which is being held for the 30th year in Barcelona.

This product, which combines innovation with sustainability, has been designed for use in the preparation of mortar, prefabricated elements and concrete for the construction industry. Its main innovation in comparison with traditional cement is **its capacity to considerably reduce the harmful polluting substances found in the atmosphere**, such as nitrogen oxides and volatile organic compounds. This reduction in pollutant levels is achieved in two separate ways:

- ◉ By **direct action**, reducing the levels of harmful gaseous substances (nitrogen oxides (NOx) or volatile organic compounds (COVs), such as benzene, toluene, etc.) produced as a result of human activity (industry, motor vehicles, domestic heating, etc.)
- ◉ By **indirect action**, as a material that limits the formation of ozone (O3) by destroying the pollutants that act as its precursors, in the main nitrogen oxides (NOx) and volatile organic compounds (COVs).

In order to achieve this, TX Aria causes the gaseous pollutants to become trapped in the surface of concrete and mortar structures manufactured using this special cement. Oxidation-reducing reactions initiated by photocatalysis transform nitrogen oxides into harmless calcium nitrate salts, while COVs are converted into water and carbon dioxide.

TX Aria® cement carries the EC kite mark, in compliance with **regulation EN 197-1**.

TX Active®

When incorporated in cement, this active solution, created by the Italcementi Group (FYM's parent company), reduces the polluting substances found in the air. FYM uses this active principal to manufacture its **TX Arca®** and **TX Aria®** range of cements





Photocatalytic reaction, which takes place on the surface of materials treated with cements containing TX Active®, uses the actions of light, water and oxygen to form highly reactive molecules that have the ability to cause certain substances present in the air to decompose through reduction by oxidation. In short, **it converts the substances that make buildings dirty and pollute the air (nitrogen oxides, sulphur and carbon, organic compounds, etc.) into gases or salts that have no impact on either the environment or human health.**

TX Active® was listed by the prestigious American publication [Time](#) as one of the 50 best inventions of 2008, based on its contribution to innovation in construction, where it offers a combination of effectiveness and eco-efficiency.





The product in action

A large number of important structures have been built using TX Active cements in several countries. These include the following:

TX Aria®

-  Riberas de Loyola church in San Sebastian (by Rafael Moneo)
-  Hermandad Santo Cristo de la Veracruz in Campillos (Malaga)
-  The Via Porpora tunnel (Milan, Italy)
-  The surface of the Via Verdi (Parma, Italy)

TX Arca®

-  Kerakoll headquarters in Almassora (Castellón)
-  Dives in Misericordia church (Rome)
-  Air France headquarters (Charles de Gaulle airport, Paris)
-  Cité de la Musique et des Beaux Arts (Chambery-France)

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Italcementi Group es el quinto productor de cemento del mundo -70 millones de toneladas al año-. Las compañías del Grupo reúnen la experiencia, el conocimiento y la cultura de 22 países y cuatro continentes. La red industrial de Italcementi está compuesta por 62 fábricas de cemento, 13 centros de mollienda, cinco terminales, 125 canteras y 614 plantas de hormigón. En el año 2008, Italcementi Group obtuvo unas ventas cercanas a los 6.000 millones de euros. Su matriz, Italcementi S.p.A., es una de las diez principales compañías industriales de Italia y cotiza en el Índice Dow Jones de Sostenibilidad, la referencia bursátil de las empresas socialmente responsables.