

Around the globe one of the biggest collective concerns is that of pollution. With the heat on them due to the increased amounts of CO₂ entering the air from production facilities and energy sourcing, engineers are now looking to come up with creative solutions to battle it.

One such structure that demonstrates this is the Palazzo Italia. This building is covered in a special concrete specially designed to absorb CO₂ - to essentially eat smog. Enclosed in 9000 square meters of concrete façade, made up of 900 panels, this architecturally striking building was realized with the aid of Italcementi; leaders in the bio-dynamic cement industry.

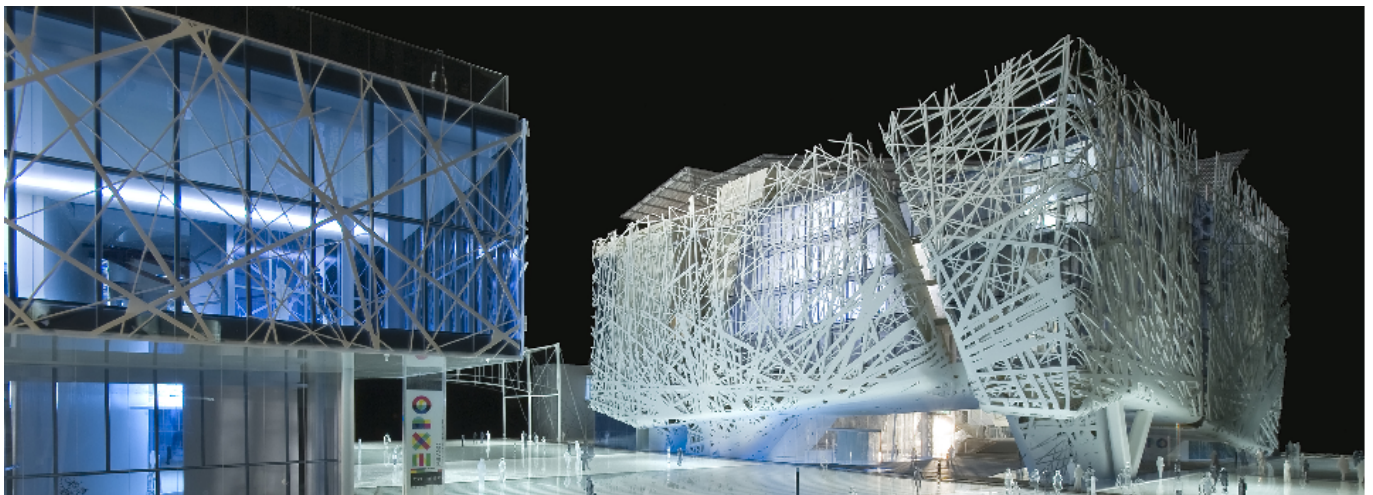


Photo Credit: Expo-2015_palazzo-italia_Milano

What makes the cement mix of this concrete unique is that, along with traditional cement mix, titanium dioxide was also introduced. This mixture allows for air to pass through while at the same time capturing nitrogen-oxide particles which are a main component of smog. The titanium dioxide acts as a catalyst to this chemical reaction which is activated by UV light.

Not only does this concrete filter air, but the smog residue which builds up subsequently gets washed off during light rainfalls. This residue is only made up of inert salts which have no effect on their surrounding environment!

In a statement by Italcementi, their team developed the proprietary mixture through an intensive 12,500 hours for this structure alone. They are hopeful that this will pave the way to take the technology to the rest of Milan and subsequently the world.

If Italcementi can push this innovative product to cover 15 per cent of Milan's buildings, this would reduce the air pollution by half!

Source: <http://interestingengineering.com/building-covered-smog-eating-concrete/>