

The winners of the Innovation Award for 2007 in the New Products Category

New Paths in Metal Coating: SIVO® SOL Technology

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The Picasso Center in Basel (architect: Peter Märkli, Zurich; owner: UBS Fund Management AG, Basel): The steel facades were treated and coated by Stucortec, a coatings customer of Evonik, with a primer based on SIVO® SOL Technology. (Photo: Stucortec).

Exceptionally hard and rugged, inorganic sol-gel coatings withstand the elements like no other coating. But despite their good properties, they contain large quantities of environmentally harmful solvents that have prevented their use in a number of applications.

A team from the Aerosil & Silanes Business Unit has now removed this hurdle with SIVO® SOL Technology. The technology comprises a multi-component sol-gel modular system based on silanes and fine, inorganic SiO₂ particles that customers from the coatings industry can use to formulate metal coatings. The advantage of the system is that it uses water as a solvent, and unlike conventional processes for pre-treating metal, works without heavy metals and inorganic fluorine compounds. It therefore allows a significant expansion of the field of application for sol-gel coatings. Despite having been introduced at the European Coatings

Show only a few months ago, commercial applications are already on hand: "The Stucortec company, a customer of ours, has brought to market a primer for metals that uses this technology and is targeted for use in the construction and transport industry," says Dr. Burkhard Standke from the Research, Development and Applications Technology department in the Aerosil & Silanes Business Unit.