

Press Release



BASF contributes to sustainable construction for the world's largest concentrated solar plant in Morocco

- Specialized solutions to secure the construction of the biggest solar plant in the world
- Master Builders Solutions® helps to ensure a durable and long service life for the Noor solar plant

Ouarzazate, Morocco, April 28, 2017 – Stage one of the three-phase construction project of the Noor solar complex was set in motion in February 2016. Innovative solutions based on the BASF Construction Chemicals division's global knowledge and experience are used in the construction of the concentrated solar power system – a more complicated process to install than the widely used photovoltaic panels.

April 28, 2017

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Several BASF products were used in the construction of this project such as concrete admixtures, grout, mortars, sealants, and joint water-resistant sealants.

"We are proud that we are able to contribute our innovative solutions and know-how to help our customers master the challenges of this complex construction project," says Andres Monroy, Managing Director, BASF Northwest Africa.

Better structural stability for the Noor solar plant

The requirements for the construction of the world's largest solar plant were varied and very specific. The material had to conform to construction specifications and provide high early strength development. It was also necessary to take into consideration the desert area where the complex is being built, namely sand, clay, and high temperatures. Additionally, and taking safety into consideration, it was necessary to comply with strict criteria in terms of final strength and durability of the concrete in its hardened state. "These challenges can be mastered extremely effectively using the broad product portfolio and flexible solutions of Master Builders Solutions designed by BASF's Construction Chemicals division, products that have proven to be beneficial for complex projects all over the world," affirms Christophe Xavier Chuche, Director of BASF Construction Chemicals Morocco.

With solutions tailored to the requirements of the Noor project, the BASF Construction Chemicals division proposed high performance concrete products as well as grouting. BASF MasterGlenium® Sky 671 superplasticizer provides a new generation of concrete with extended workability at high temperatures and ensures high strength and stability of the mirrors' structure. Due to the product's good stability and resistance to exterior conditions and reaction to sand, it maintains the high mechanical performance of the concentrated solar power system.

BASF MasterFlow[®] 765 grout solutions protect the base of the solar panel from vibration and any harsh conditions, providing ultra-high

strength, fatigue-resistant cement, making solar energy projects more cost effective during installation, and more durable and secure over the entire lifetime of the solar complex.

In cooperation with BASF, special tests were performed resulting in the selection of the most effective type of concrete and grout as well as the suitable application method for the products used in the construction of the solar complex. "For most of the big projects, customers benefit from the broad experience and connectedness of our experts in Africa and Europe, and they receive a comprehensive package of services and advice. This simplifies the construction process and ensures timely completion even of time-critical projects," says Adil El Maaiche, BASF's Admixture Systems Manager in Morocco.

BASF offers unique solutions for the construction of the largest concentrated solar complex in the world in the Moroccan desert and proactively participates in producing enough energy to power over one million homes by 2018 whilst at the same time lowering carbon emissions. By the end of its construction the complex will cover an area of about 30 km² and produce energy of roughly 500 Megawatt.

About the Construction Chemicals division

BASF's Construction Chemicals division offers advanced chemical solutions under the global umbrella brand Master Builders Solutions for the construction, maintenance, repair and renovation of structures. The brand is built on more than 100 years of experience in the construction industry. Our comprehensive portfolio encompasses concrete admixtures, cement additives, chemical solutions for underground construction, waterproofing systems, sealants, concrete repair & protection systems, performance grouts, performance flooring systems, tile-fixing systems, expansion joints & control systems and wood protection solutions.

The Construction Chemicals division's approximately 6,000 employees form a global community of building experts. To solve our customers' specific construction challenges from conception through to completion of a project, we draw on our specialist know-how, regional expertise and the experience gained in countless constructions projects worldwide. We leverage global BASF technologies and our in-depth knowledge of local building needs to develop innovations that help make our customers more successful and drive sustainable construction.

The division operates production sites and sales offices in more than 60 countries and achieved sales of about €2.3 billion in 2016.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 114,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of about €58 billion in 2016. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.