News Release

Master Builders Solutions® at International SHCC4 Conference in Dresden

September 18, 2017
P 307/17

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- **BASF presents technologies and solutions in the field of strain-hardening cement-based composites**
- **Introduction of the innovative product series MasterFiber and MasterEase**
- **Presentation of sustainability campaign**

Dresden, Germany, September 18, 2017 – From September 18 to 20, 2017, BASF will present its technical know-how in the field of strain-hardening cement-based composites (SHCC) at the International SHCC4 Conference in Dresden. The main focus is on

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We create chemistry

the innovative MasterFiber product series: especially with high-performance polyvinyl alcohol (PVA) fibers in the MasterFiber series, BASF offers an alternative reinforcement solution for strain-hardening cement-based composites. The high-performance durable rust-proof fibers allow the production of extremely intricate and durable components. Among other applications, the fibers are used for facade elements and delicate precast concrete elements. The synthetic fibers from Master Builders Solutions ensure solutions that are durable, economical and reliable.

Presentation on SHCC technology with polypropylene fibers

In his presentation, “Characterization and Performance Evaluation of SHCC with Engineered Polypropylene Fibers”, Dr. Martin Hunger, Head of ICT Alternative Reinforcement at BASF, will explain the prerequisites for a test setup to develop fibers for SHCC. The evaluation procedure is explained on the basis of load/deformation curves for various fiber materials. The paper shows that polypropylene fibers, despite their surface, which is inert compared with PVA fibers, can still be suitable for the production of SHCC. This is possible through targeted modification of the fiber surface, allowing significantly higher stress transmission following the initial crack. Several cracks are created, establishing an SHCC that remains ductile in the long term in combination with the elongation properties of polypropylene fibers. This advantage and their lower price compared with PVA fibers make modified polypropylene fibers attractive for use in SHCC.

MasterEase for low-viscosity concrete

In Dresden, the experts from Master Builders Solutions are also presenting the MasterEase range of plasticizers: MasterEase products are based on an innovative molecular structure and produce concretes with low viscosity as well as optimized rheology and workability. The new technology facilitates resource-conserving optimization of concrete formulations, making the installation process more time-efficient and producing exceptionally high-quality concrete surfaces. This applies especially to applications in strain-

hardening cement-based composites with high shares of cement replacement materials.

Sustainability campaign from Master Builders Solutions

Participants in the SHCC4 Conference will also have an opportunity to obtain information on how products from Master Builders Solutions help improve eco-efficiency at the BASF stand. This is illustrated by the Europe-wide Master Builders Solutions sustainability campaign launched in 2017. The campaign focuses on projects where customers were able to increase their productivity at the same time as reducing costs and emissions thanks to advanced chemistry from BASF. In one such case, a large German precast manufacturer was able to reduce its energy costs by 15 % and its CO_2 footprint by 10 % by using Master X-Seed, obtaining a 50-percent acceleration in concrete hardening.

Additional project examples can be found on the new website at www.sustainability.master-builders-solutions.basf.com.

For further information on innovative BASF products for the construction industry, please go to www.master-builders-solutions.basf.com.

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.