

## Press Release of BJS Ceramics GmbH

Gersthofen/Bayreuth July 26, 2017

### **Silicon Carbide (SiC) Fiber development made in Germany – further milestone achieved**

Non-oxydic ceramic fibers, so-called silicon carbide (SiC) fibers are used in SiC-fiber-reinforced composite materials. Fiber-reinforced composite materials uniquely combine important characteristics such as high-temperature resistance, high mechanical strength, high resistance against aggressive media like acids or salts – while being light-weight. Many industries rely on this high-performance material, e.g. the aviation industry. This composite material enables more efficient turbines for airplanes that will meet the future regulatory limits for emissions.

More than 10 years of intensive research and development activities of the industry together with the Fraunhofer Center for Hightemperature Lightweight Construction HTL were required to finally arrive at this rewarding milestone: The Fraunhofer HTL location in Bayreuth, Bavaria, Germany will be expanded by a ceramic fiber pilot plant for oxydic and non-oxydic ceramic fibers. The ceramic fiber plant will start up in January 2019. BJS Ceramics GmbH from Gersthofen, Germany, is one of the key partners who together with Fraunhofer HTL developed to a large extent the know-how and expertise for the non-oxydic ceramic fiber part of the pilot plant.

The symbolic ground-breaking ceremony for the construction of a ceramic fiber pilot plant in Bayreuth, Germany, took place today in the presence of the Bavarian Minister of Economics, Ilse Aigner, and many other honorees. The state of Bavaria and Germany equally funded this pilot plant which is of great strategic importance for Europe and Germany – and especially for Bavaria - because it is the only facility of this kind in Europe, and it complements and reinforces the Bavarian cluster for aviation and aerospace with high-performance ceramic fibers. This pilot plant is the next essential step to take the development of ceramic fibers from the lab-scale to the pre-industrial qualification stage. The pilot plant also enables Fraunhofer HTL to develop other types of ceramic fibers with many different partners from research and industry.

Aigner: “The development of new materials is an important topic of the future and offers numerous application possibilities. In the past, Bavaria has built up excellent competencies in this high-tech-arena. With the development of SiC Fibers and the future fiber pilot plant we have achieved the next important step. This invigorates Bavaria overall as an innovative high-tech-location.”

“This plant will be Europe’s first pre-industrial pilot plant of ceramic fibers in the scale of tons. This is the only way to qualify ceramic fiber reinforced composite components. This pilot plant hence, finally closes a gap to establishing a fully integrated value chain for SiC-fiber reinforced composite materials. This milestone could only be achieved in close cooperation with cutting edge research institutes and industry backed by public funding programs of Germany and the State of Bavaria” says Dr. Werner Humbs, Managing Director of BJS Ceramics GmbH.

“We are happy to expand our research- and development-portfolio by this important pilot plant and are sure that our results will bring value to many different industries! Our partners have been waiting for a long time for the start-up of this pilot plant,” adds Dr. Friedrich Raether, Fraunhofer HTL.

All involved parties are confident that the ground-breaking is only the beginning of a bright future! The joint plans provide to develop the next generation of ceramic fibers. The pipeline will be steadily filled to satisfy the need for new high performance materials to solve the challenges of the future in markets such as mobility, energy and water management!

**About BJS Ceramics GmbH:**

BJS Ceramics GmbH is a privately owned start-up company which took over the business area of preceramic polymers and silicon carbide (SiC) fibers from SGL Carbon Group in the year 2014. Since then, BJS Ceramics GmbH develops successfully preceramic polymers and SiC-fibers and will build up a commercial SiC-fiber production after the qualification of its SiC-fibers in the pilot plant. The raw materials and processes thereto are patented. BJS Ceramics GmbH has a wholly owned subsidiary, BJS Composites GmbH, which took over the ceramic center of MT Aerospace in 2015. BJS Composites GmbH produces mainly SiC-fiber-reinforced composite materials in a patented production process. These high-performance ceramic matrix composite components are used in aviation and aerospace as well as in industrial applications such as energy and water management. The patented value chain of the BJS companies offers innovative solutions for the most aggressive operating conditions where other materials fail. For more details about BJS visit our webpage under [www.bjsceramics.com](http://www.bjsceramics.com) or [www.bjsgcomposites.com](http://www.bjsgcomposites.com).

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