



Press release

Glatt Ingenieurtechnik GmbH

Fraunhofer IKTS operates world's first flameless high-temperature powder synthesis plant

The German Fraunhofer Institute for Ceramic Technologies and Systems IKTS relies on technology from Glatt to produce high-purity, high-performance oxide materials.

**Contact with the company:
Glatt Ingenieurtechnik GmbH**

Mona Berger
+ 49 3643 47-1502
mona.berger@glatt.com
Nordstrasse 12
99427 Weimar
Germany

**Contact for the press:
akp public relations**

Claudia Heck
+ 49 6201 188 98 24
claudia.heck@akp-pr.de
Birkenauer Talstr. 9
69469 Weinheim
Germany

28 June 2021

Weimar, Germany, June 2021: At its Hermsdorf site, the Fraunhofer Institute for Ceramic Technologies and Systems IKTS creates high-performance oxide ceramics for medical technology and optical components. The world's first Glatt synthesis reactor for temperatures up to 1300°C was recently put into operation there, with the powder synthesis process based, for the first time, on a flameless concept with pulsating gas flow.

Ceramic high-performance materials play a fundamental role in almost all forward-looking industries: mechanical engineering, automotive engineering, electronics, energy, biotechnology and medical technology are just some of the sectors in which IKTS conducts research. For the production of application-specific oxide nanopowders, the researchers now use the powder synthesis technology of plant manufacturer Glatt to produce powders on a kilogram scale (funded by the Thüringer Aufbaubank (TAB), FKZ: 2017 FGI 0038 and co-financed with ERDF).

The technology combines spray drying and spray calcination processes, and enables the precise design of new powder types with precisely adjusted properties in a pulsating gas flow. A reactor heater was installed in the Glatt ProAPP synthesis reactor, which ensures a constant gas temperature of up to 1300°C throughout. This powder synthesis process makes it possible to specifically define the phase state, morphology, grain size and grain size distribution of the primary particles, and produce them to a consistently high quality.



About Glatt Ingenieurtechnik:

For more than 30 years, Glatt Ingenieurtechnik GmbH plans and carries out international projects from the enlargement or modernization of existing production facilities to the construction of whole new factories. The plant engineering and process expert combines professional engineering with sound technical know-how derived from patented process technologies, such as Glatt powder synthesis and fluidized and spouted bed methods for granulation and coating processes. The focus of the projects is on processes in the field of particle design and particle engineering for the development, optimization, functionalization and production of powder and bulk goods such as granulates and pellets. These are used in the food, feed, chemicals and fine chemicals industries. Glatt is also a leading partner in the engineering of pharmaceutical and biotechnological facilities for the manufacture of solid, semisolid, liquid and sterile dosage forms. The company's headquarters are in Weimar, Germany, and affiliates are located in Germany, Europe, Russia, India and the USA. As an integral part of the international Glatt Group, Glatt Ingenieurtechnik can draw on a global network of some 3000 employees. Numerous agencies exist worldwide as contacts for the full range of goods and services.

For more information, please visit: www.glatt.com

