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Materials for advanced ceramics

Ceramic products hold a key position in many industrial sectors not only due to their extreme hardness and wear resistance but also due to their chemical stability. However, increasing requirements in durability and reliability as well as the demand for low cost applications exact innovations in material development and processing.

Pades offers the opportunity for pinpointed design and functionalization of ceramic particles. This improves significantly the performance of the resulting ceramic product.

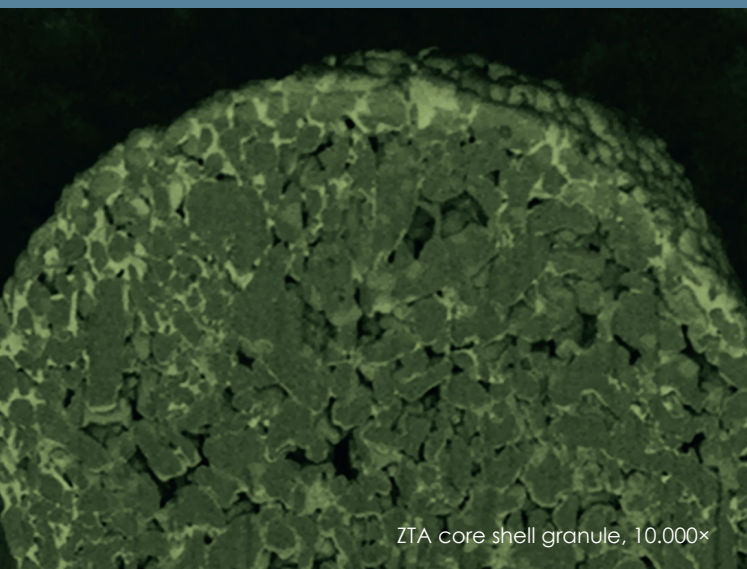
No matter if simple, doped or highly complex mixed oxide systems from nano to micro scale – with pades technologies we can adjust novel ceramic powder raw materials exactly to your application.

With properties optimized for application and extraordinary homogeneity based on our technology our powders attain a performance which has not been reached so far.

Our technologies for core-shell-coating and functionalization not only enable us to design and program new properties but also facilitate the new powder materials' processing. Moreover we can conserve sintermaterials which are susceptible to oxidation for the following processing steps by functionalization.

You would prefer ready-to-press-granules in first place? We possess the essential technologies and the know-how to generate granules customized for your application.

With the integral combination of all processing steps and the grouping of diverse technologies and required competences pades offers a complete user-specific solution – from powder synthesis to semi-finished products.



ZTA core shell granule, 10.000x

Our offer:

- Ceramic high-performance materials – customized for your application
- Innovative technologies for production and processing of ceramic powder materials
- Innovation support for your material design development through our competence in material and processing



pades | project partner

Innovation alliance for ceramics

Ceramic high-performance materials for ceramic innovations in future markets as well as technologies for production and processing are offered by the following competence partners:

Barat Ceramics GmbH (Barat) is a leader of advanced ceramic and ceramic/metal composites for a wide range of innovative high-tech solutions.

FCT Ingenieurkeramik GmbH (FCT) develops and produces customized parts from tailored materials on the base of silicon nitride and silicon carbide.

Fraunhofer Institute for Ceramic Technologies and Systems (IKTS) is as research and technology service provider developing ultramodern high-performance ceramic materials, industrially relevant manufacturing processes, prototype components and systems.

Friedrich Schiller University Jena, Chair of Materials Science (FSU/CMS) research focus is on develop-

ment and characterization of biomaterials, nano-structured materials and composites.

Glatt Ingenieurtechnik GmbH core activities are the development of perfect technological processes for the manufacture of granules and pellets.

IBU-tec advanced materials AG offers independent solutions, services, consulting and engineering in every aspect of materials research, product development and contract manufacturing.

Material Research and Testing Institute (MPTA) is focused on research, testing and characterization of materials from different fields of engineering applying sophisticated experimental techniques as well as modern computer simulation tools.

Mathys Orthopaedie GmbH (Mathys) develops, produces and distributes implants and instruments as an orthopaedic manufacturer.



Learn about our services and secure a reliable supply source for materials exactly tailored to your application. Gain a competitive advantage through extraordinary functionality.

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