CeramTec GmbH

About this organisation

Machine translation

This organisation has been machine-translated based on data provided in German.

CeramTec has been a supplier of technical ceramics since 1903 and has around 3,400 employees worldwide at production sites in Europe, the USA and Asia. Well over 10,000 products, components and parts are used in a wide range of applications. We develop and produce customised components in medium and large series from various ceramic materials tailored to customer requirements.

Technical ceramics make valuable contributions to lightweight construction and often enable the realisation of components in the first place thanks to their properties. Lightweight construction with ceramic materials. Technical ceramics are lightweight construction materials due to their low density. Numerous ceramic materials enable a wide range of applications. Be it in electronics or in mechanical and plant engineering. They offer solutions for mobility, renewable energies, digitalisation and automation as well as medical technology. Composite materials with ceramics in lightweight construction This application is a metal-ceramic composite (MMC). The advantages of both materials are transferred to one workpiece. The low weight of metal and the high performance of ceramics. Lightweight construction through additive manufacturing The 3D printing of ceramics makes it possible to produce free geometric structures with high hardness and optimum temperature and chemical resistance.

CeramTec Platz 1-9
73207 Plochingen
Baden-Württemberg
Germany
www.ceramtec.de

Organisation type
Large enterprises

Sectors

Employees
500 and more

Turnover
More than €50m

Funding

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About this organisation

Main areas covered	Automotive, general mechanical engineering, Electronics, Medical technology
Infrastructure	
Certifications	ISO 9001, IATF 16949, DIN EN ISO 13485, ISO 14001, ISO 50001, DIN EN ISO/IEC 17025, CGMPs
Keywords	Wear protection, Temperature resistant, Corrosion resistant, Biocompatible, Insulating
Memberships	German ceram. Society DKG, Association of the ceram. Industry VKI

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Systems and end products, Materials, Tools and moulds	✓	✓	✓
Services & consulting			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout			
Functional integration Material functionalisation	✓	✓	✓
Measuring and testing technology			
Modelling and simulation Loads & stress, Multiphysics simulation, Optimisation, Structural mechanics, Materials		✓	
Plant construction & automation			
Recycling technologies			
Manufacturing process			
Additive manufacturing 3D printing		✓	✓
Coating (surface engineering) Plasma process, Sputtering		✓	✓
Fibre composite technology			
Forming			
Joining			
Material property alteration Heat treatment			✓
Primary forming			
Processing and separating Drilling, Turning, Milling, Electrical discharge machining, Sawing, Shearing/punching, Grinding, Cutting			✓
Textile technology			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials) Open-pore	✓	✓	✓
Composites Metal-ceramic composite	✓	✓	✓
Fibres			
Functional materials Electrostrictive / magnetostrictive materials, Piezoelectric materials		✓	✓
Metals			
Plastics			
Structural ceramics Monolithic ceramics, Non-oxidic ceramics, Oxidic ceramics, Ultra-high-temperature ceramics		✓	✓
(Technical) textiles			

Contacts

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Contacts

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