

Carbon Composites e.V.

Dept. Ceramic Composites at CCEv

About this organisation

Machine translation

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

Ceramic Composites in the CCEv was founded in November 2008 as a specialist department of Carbon Composites e.V.. Its members are companies and research institutes involved in the development and production of fibre-reinforced composites with a ceramic matrix (including fibre-reinforced ceramics) and their pre-competitive market development. The members come from all German-speaking countries.

The aim of the Ceramic Composites department is to bring together and complete the scientific and technical resources in the field of ceramic matrix composites (CMC) and to promote the rapid market launch of this new class of materials through pre-competitive collaboration between industrial, university and non-university research institutions in all areas along the value chain. The Ceramic Composites department organises working groups, workshops, training seminars and conferences on all aspects of CMC.

Am Technologiezentrum 5
86159 Augsburg
Bavaria
Germany
www.carbon-composites.eu/de/netzwerk/abteilungen/ceramic-composites/



Organisation type

Cluster

Sectors



Others: Hochtemperaturleichtbau, Ofenbau, Wärmetechnik, Hochtemperatur-Reaktionstechnik

Employees

10 up to 49

Turnover

Up to €2m

Funding

n/a

Main areas covered

Promotion of R&D, Training and further education, Market development, User counselling, Public relations

Infrastructure

Certifications

Keywords

Mechanical properties, Thermal properties, Corrosive properties, High temperature properties, Simulation Material properties

Memberships

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Machines and plants, Software & databases, Materials, Tools and moulds	✓	✓	✓
<i>Services & consulting</i>			
Field of technology			
Design & layout Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	✓
Functional integration Thermal activation, Material functionalisation	✓	✓	✓
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	✓
Modelling and simulation Loads & stress, Multiphysics simulation, Optimisation, Processes, Structural mechanics, Materials, Reliability validation	✓	✓	✓
Plant construction & factory automation Plant construction	✓	✓	✓
<i>Recycling technologies</i>			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing	✓	✓	✓
Coating (surface engineering) Plasma process	✓	✓	✓
Fibre composite technology Filament winding, Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion	✓	✓	✓
<i>Forming</i>			
Joining Sewing, Others: null	✓	✓	✓
Material property alteration Thermochemical treatment, Heat treatment	✓	✓	✓
Primary forming Pultrusion, Sintering, Injection moulding	✓	✓	✓
Processing and separating Drilling, Milling, Electrical discharge machining, Sawing, Grinding, Cutting	✓	✓	✓
Textile technology Fibre manufacturing, Braiding, Yarn & roving production, Preforming, Knitting, Nonwoven & mats production, Weaving, Knitting, laid web production	✓	✓	✓

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	Research	Development	Manufacturing & Supply
Material			
<i>Biogenic materials</i>			
<i>Cellular materials (foam materials)</i>			
Composites Ceramic matrix composite (CMC), Carbon-fiber reinforced plastics (CFRP)	✓	✓	✓
Fibres Glass fibres, Ceramic fibres, Carbon fibres	✓	✓	✓
<i>Functional materials</i>			
<i>Metals</i>			
<i>Plastics</i>			
Structural ceramics Non-oxidic ceramics, Oxidic ceramics, Ultra-high-temperature ceramics, Others: null	✓	✓	✓
<i>(Technical) textiles</i>			

Contacts

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Contacts

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