

About this organisation

Machine translation

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

CompriseTec GmbH (CT) develops and sells polymer and fibre composite components for the automotive and aviation industries, among others. The company also designs special systems and equipment for manufacturing these components. Its unique selling point is its comprehensive materials expertise in thermoplastics, duromers and elastomers in combination with component and industrial process development. The CT team consists of 25 materials experts.

In addition to the process technologies, Comprisetec develops lightweight components using the CAD systems CATIA+CREO+NX. Structural calculations are carried out with ABAQUS. Extreme lightweight construction potentials are realised with topology optimisations using TOSCA. The flow properties in injection moulding, the fibre orientation and also the warpage are calculated with MOLDEX3D. With this CAX spectrum and the broad material expertise in fibre and matrix systems - be it thermoset or thermoplastic types - considerable lightweight construction potential has already been developed. Various components have already been developed to industrial series production readiness and manufacturing processes have been enabled for process reliability. CT has recently started offering life cycle assessment (life cycle analysis) for plastic and fibre composite products and is therefore in a position to ecologically evaluate and optimise both its own developments and customer products.

Rödingsmarkt 20
20459 Hamburg
Hamburg
Germany
www.comprisetec.de



Organisation type

Small or medium-sized enterprise

Sectors



Employees

10 up to 49

Turnover

Up to €2m

Funding

About this organisation

Main areas covered	Component and process development, Prototype and small series
Infrastructure	Technical centre for plastics processing, Compounding and injection moulding, Pultrusion (immersion bath, in-situ), SMC Presses, Infusion techniques
Certifications	
Keywords	SMC, Hybrid injection moulding, Pultrusion, Compounding and injection moulding
Memberships	SAMPE, Hamburg Aviation, Hanse Aerospace, 3D printing Hamburg

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Machines and plants, Materials, Tools and moulds	✓	✓	✓
Services & consulting Consulting, Testing and trials, Engineering, Prototyping, Simulation, Technology transfer	✓	✓	✓

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	✓
Functional integration Sensor technology, Material functionalisation	✓	✓	✓
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), Environmental simulation	✓	✓	✓
Modelling and simulation Loads & stress, Optimisation, Processes, Structural mechanics, Materials	✓	✓	✓
Plant construction & automation Plant construction, Automation technology		✓	
<i>Recycling technologies</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Stereolithography	✓	✓	✓
<i>Coating (surface engineering)</i>			
Fibre composite technology Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion	✓	✓	✓
<i>Forming</i>			
<i>Joining</i>			
<i>Material property alteration</i>			
<i>Primary forming</i>			
<i>Processing and separating</i>			
<i>Textile technology</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Bioplastics, Biocomposites, Wood	✓	✓	✓
Cellular materials (foam materials) Closed-pore, Open-pore	✓	✓	✓
Composites Aramid fibre composites, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Nanocomposites, Natural fibre reinforced plastics (NFRP)	✓	✓	✓
Fibres Aramid fibres, Glass fibres, Carbon fibres, Natural fibres	✓		
<i>Functional materials</i>			
<i>Metals</i>			
Plastics Thermoset plastics, Elastomers, Thermoplastics	✓	✓	✓
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

Contacts

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Contacts

Mr Dr. Christian-Andre Keun

CEO

ck@comprisetec.de