

Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT

About this organisation

Machine translation

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

As an institute of the Fraunhofer-Gesellschaft, Fraunhofer UMSICHT works in the field of applied research. Fraunhofer UMSICHT sees itself as a pioneer of sustainable energy and raw materials management by providing and transferring scientific results to companies, society and politics. The Fraunhofer UMSICHT team researches and develops sustainable products, processes and services together with partners.

The "Product Development" department researches and develops material systems related to construction technology (fire-resistant glazing, thermotropic polymers, aerogels).

Osterfelder Straße 3
46047 Oberhausen
North Rhine-Westphalia
Germany

www.umsicht.fraunhofer.de



Organisation type

Non-university research institution

Sectors

No specific sector

Employees

250 up to 499

Turnover

€10m - €50m

Funding



Main areas covered

Aerogels, Composite systems

Infrastructure

chem., phys., mech. labs, Technical centres and test benches, mechanical and electrical workshops

Certifications

Keywords

Aerogel, Roof covering

Memberships

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
<i>Products</i>			
Services & consulting Testing and trials, Prototyping, Validation, Simulation, Technology transfer	✓	✓	
Field of technology			
Design & layout Hybrid structures, Lightweight construction concepts	✓	✓	
Functional integration Sensor technology, Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Environmental simulation	✓	✓	
Modelling and simulation Life-cycle analysis, Optimisation, Materials	✓	✓	
Plant construction & automation Plant construction, Automation technology	✓	✓	
Recycling technologies Material separation, Recycling, Upcycling	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Selective laser sintering (SLS)	✓	✓	
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
<i>Forming</i>			
<i>Joining</i>			
Material property alteration Mechanical treatment, Thermochemical treatment, Thermomechanical treatment	✓	✓	
<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	✓	✓	
<i>Cellular materials (foam materials)</i>			
<i>Composites</i>			
<i>Fibres</i>			
<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

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