

About this organisation

Research facility for wood and renewable raw materials. Our core competencies lie in materials research and process technology along the entire value chain - from raw materials to the finished product. We develop methods and basic principles and conduct applied research at the interface between industry and science in order to enable resource-efficient management in the circular bioeconomy.

Wood/natural fiber composites; bio-based CF from cellulose / lignin Up to pilot scale: Extrusion, compounding, injection / compression molding, chemical foaming, 3D-filaments, 3D printing, 3D scanner, RTM, melt spinning. Thermal, chemical, optical, mechanical characterization, artificial and natural weathering. Powder and plasma coating Machine learning, VR/AR, assistance and cobot systems, Big Data, prescriptive analytics Ex-ante/social LCA

Altenberger Strasse 69
4040 Linz
Austria
Austria

www.wood-kplus.at



Organisation type

Non-university research institution

Sectors

No specific sector

Employees

50 up to 249

Turnover

n/a

Funding

n/a



Main areas covered

Profile/co/foam extrusion, (Foam) injection moulding, compounding, 3D-FLM printing, filament production, Surface treatment, biogenic carbon materials

Infrastructure

Compounding, extrusion, injection moulding, compression molding and RTM, 3D-FLM printing / filament extrusion, Surface treatment, High temperature furnaces, melt spinning

Certifications

Keywords

Surfaces, functionalisation, Co-extrusion and foaming, Sensors, Natural fibre composites (NFC), Carbon fibres

Memberships

Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Materials	✓	✓	
Services & consulting Training, Consulting, Testing and trials, HR services, Prototyping, Validation	✓	✓	
Field of technology			
Design & layout Hybrid structures, 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, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	
Modelling and simulation Life-cycle analysis, Optimisation, Processes, Materials	✓	✓	
Plant construction & factory automation Handling technology, Robotics	✓	✓	
Recycling technologies Downcycling, Recycling, Upcycling	✓	✓	

Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing	✓	✓	
Coating (surface engineering) Plasma process, Powder coating	✓	✓	
Fibre composite technology Fibre spraying, Pre-preg processing	✓	✓	
Forming Compression moulding	✓	✓	
Joining Adhesive bonding	✓	✓	
<i>Material property alteration</i>			
Primary forming Extrusion, Injection moulding	✓	✓	
<i>Processing and separating</i>			
Textile technology Fibre manufacturing	✓	✓	

Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Bioplastics, Biocomposites, Wood	✓	✓	
<i>Cellular materials (foam materials)</i>			
Composites Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Natural fibre reinforced plastics (NFRP)	✓	✓	
Fibres Aramid fibres, Basalt 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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