Chair of Materials Science and Testing of Plastics

About this organisation

Machine translation

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The Chair of Materials Science and Testing of Plastics sees itself as an integral and central part of the Department of Plastics Technology at the University of Leoben, which acts as a link between material synthesis and modification on the one hand and plastics and composite material processing as well as construction and component design on the other.

Determination of morphology and composition using stateof-the-art methods. Mechanical behaviour under complex stress conditions (mechanical loads, temperature, media). Fracture mechanics Establishment of material laws, failure criteria and service life modelling

Schimplhofstrasse 41a 8700 Leoben Austria Austria ⊠ www.kunststofftechnik.at



WERKSTOFFKUNDE UND PRÜFUNG DER KUNSTSTOFFE

Organisation type University or higher education institution

Sectors No specific sector

Employees 10 up to 49

Turnover n/a

Funding





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About this organisation		
Main areas covered	Material characterisation, Testing technology, Material models, Reliability predictions	
Infrastructure	Structural analysis, Mechanical analysis, Thermal analysis	
Certifications		
Keywords		
Memberships		

Overview of lightweighting expertise

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	Research	N Development	Aanufacturing & Supply
Offer			
Products Materials	\checkmark	\checkmark	
Services & consulting Training, Consulting, Testing and trials, Funding, Standardisation, Validation, Simulation, Technology transfer	~	\checkmark	

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	Research	N Development	lanufacturir & Supply	
Field of technology				
Design & layout				
Functional integration Material functionalisation	\checkmark	\checkmark		
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis, Destructive analysis, Non-destructive analysis	\checkmark	~		
Modelling and simulation Crash behaviour, Life-cycle analysis, Structural mechanics, Materials, Reliability validation	\checkmark	~		
Plant construction & factory automation				
Recycling technologies Downcycling, Recycling, Upcycling	\checkmark	\checkmark		
Manufacturing process				
Additive manufacturing				
Coating (surface engineering)				
Fibre composite technology				
Forming				
Joining Adhesive bonding	\checkmark	\checkmark		
Material property alteration				
Primary forming				

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Overview of lightweighting expertise			
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	Research	Manufactı Development & Supp	
Material			
Biogenic materials Bioplastics, Biocomposites	\checkmark	\checkmark	
Cellular materials (foam materials) Closed-pore, Open-pore, Syntactic foams	\checkmark	\checkmark	
Composites Aramid fibre composites, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Nanocomposites, Natural fibre reinforced plastics (NFRP), Laminates, Particulate composites	~	~	
Fibres Aramid fibres, Glass fibres, Carbon fibres, Metal fibres, Natural fibres	\checkmark	~	
Functional materials			
Metals			
Plastics Thermoset plastics, Elastomers, Thermoplastics	\checkmark	\checkmark	
Structural ceramics			
(Technical) textiles			

Contacts

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