Dresden University of Technology
Institute for Building Materials

About this organisation

Machine translation

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

Teaching and research institution with a focus on mineral-bonded composites with and without fibre reinforcement.

Expertise in characterising the raw materials for the composites, designing mix compositions for mortars and concretes with conventional and innovative mineral binders, producing fresh mixes, characterising their properties, producing material samples using manual and automated processes, mechanical testing of the composites, durability testing of the composites. Suitability of fibre-reinforced composites for (relatively) lightweight construction, as in contrast to e.g. reinforced concrete, almost no concrete covering of the reinforcement is required for the purpose of corrosion protection.

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01069 Dresden
Saxony
Germany
tu-dresden.de/bu/bauingenieurwesen/ifb

Organisation type
University or higher education institution

Sector

Employees
10 up to 49

Turnover
n/a Forschungseinrichtung mit Grundlagenfinanzierung durch Freistaat Sachsen sowie Drittmittelfinanzierung aus Forschungsprojekten öffentlicher Geldgeber. Darüber hinaus Drittmittelfinanzierung aus Auftragsforschungen wirtschaftlich aktiver Partner.

Funding

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Main areas covered	mineral-bonded composites, fibre-reinforced composites, Rheology of fresh mixtures, Mechanical characterisation, Microstructure analysis
Infrastructure	Mixers and rheometers, Single-axis testing machines, Measurement technology Force, deformation, Microscopes, tomograph, 3D printer for concrete
Certifications	none
Keywords	Carbon concrete, High-ductility concrete, Fibre reinforcements, 3D printing with concrete
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products			
Services & consulting Training, Consulting, Testing and trials, Validation	✓		

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout			
Functional integration			
Measuring and testing technology Materials analysis, Destructive analysis, Non-destructive analysis	✓		
Modelling and simulation			
Plant construction & automation			
Recycling technologies			
Manufacturing process			
Additive manufacturing 3D printing, Others (3D yarn lay-up)	✓		
Coating (surface engineering)			
Fibre composite technology Fibre spraying, Casting (concrete), Manual lamination, Spraying (concrete), Others (Injection process (concrete))	✓		
Forming			
Joining			
Material property alteration Mechanical treatment, Heat treatment, Others (Chemical treatment)	✓		
Primary forming			
Processing and separating			
Textile technology			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites Short fibre-reinforced concrete, Textile-reinforced concrete	✓		
Fibres Aramid fibres, Basalt fibres, Glass fibres, Ceramic fibres, Carbon fibres, Metal fibres, Natural fibres, Others (Polymer fibres)	✓		
Functional materials Shape memory materials, Piezoelectric materials	✓		
Metals			
Plastics			
Structural ceramics			
(Technical) textiles			

Contacts

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Contacts

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