

# Berlin University of Technology

## Extrusion research centre

### About this organisation

#### Machine translation

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

The work at the Extrusion Research Centre (FZS) at TU Berlin focuses on the one hand on the continuous further development of the extrusion process and the tools and machines required for extrusion. On the other hand, the investigations at the Extrusion Research Centre serve to develop new materials and alloys that are formed with the aid of extrusion.

The expertise of the FZS in the field of lightweight construction includes analyses and developments along the entire extrusion process chain, from billet homogenisation, billet heating, extrusion, billet cooling, stretching and sawing of the strands through to artificial ageing and surface treatment. Investigations are carried out for all known metallic lightweight materials such as aluminium, magnesium, titanium, lithium and beryllium. Multi-material composites (MMC) can also be formed and analysed at the FZS.

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13355 Berlin  
Berlin  
Germany  
[www.strangpressen.berlin](http://www.strangpressen.berlin)



FZS Forschungszentrum  
**STRANG  
PRESSEN**  
der TU Berlin

#### Organisation type

University or higher education institution

#### Sectors

No specific sector

#### Employees

10 up to 49

#### Turnover

Up to €2m

#### Funding

n/a



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PRESSEN**  
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### About this organisation

<b>Main areas covered</b>	Reshaping, Material characterisation, Material development
<b>Infrastructure</b>	Extrusion process chain, Mechanical material testing, Wire drawing, Sheet metal forming, Metallography laboratory
<b>Certifications</b>	
<b>Keywords</b>	Extrusion moulding, Material development, Material characterisation, Magnesium, Aluminium
<b>Memberships</b>	

### Overview of lightweighting expertise

#### Machine translation

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	Research	Development	Manufacturing & Supply
<b>Offer</b>			
<b>Products</b> Parts and components, Semi-finished parts, Machines and plants, Software & databases, Systems and end products, Materials, Tools and moulds	✓	✓	
<b>Services &amp; consulting</b> Training, Consulting, Testing and trials, Funding, Engineering, Prototyping, Validation, Simulation, Technology transfer	✓	✓	✓

## Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
<b>Field of technology</b>			
<b>Design &amp; layout</b> Lightweight manufacturing, Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	
<b>Functional integration</b> Material functionalisation	✓	✓	
<b>Measuring and testing technology</b> Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	
<b>Modelling and simulation</b> Loads & stress, Life-cycle analysis, Optimisation, Processes, Materials, Reliability validation	✓	✓	
<b>Plant construction &amp; automation</b> Automation technology	✓	✓	
<b>Recycling technologies</b> Recycling	✓	✓	

## Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
<b>Manufacturing process</b>			
<b>Additive manufacturing</b> 3D printing, Selective laser melting (SLM, LPBF, ...)	✓	✓	
<b>Coating (surface engineering)</b> Galvanising, Powder coating	✓	✓	
<b>Fibre composite technology</b> Fibre spraying, Filament winding	✓	✓	
<b>Forming</b> Bending, Impact extrusion, Compression moulding, Forging, Extrusion moulding, Stretch forming, Thermal converting, Deep-drawing, Fluid active media based forming, Rolling	✓	✓	
<b>Joining</b> Hybrid joining	✓	✓	
<b>Material property alteration</b> Mechanical treatment, Thermochemical treatment, Thermomechanical treatment, Heat treatment	✓	✓	
<i>Primary forming</i>			
<b>Processing and separating</b> Drilling, Turning, Milling, Sawing, Grinding	✓	✓	
<i>Textile technology</i>			

## Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
<b>Material</b>			
<b>Biogenic materials</b> Biocomposites	✓	✓	
<b>Cellular materials (foam materials)</b> Closed-pore, Open-pore	✓	✓	
<b>Composites</b> Metal-fibre-polymer composite, Metal-ceramic composite, Metal matrix composite, Nanocomposites, Laminates	✓	✓	
<b>Fibres</b> Ceramic fibres, Carbon fibres, Metal fibres	✓	✓	
<b>Functional materials</b> Shape memory materials	✓	✓	
<b>Metals</b> Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium	✓	✓	
<i>Plastics</i>			
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

## Contacts

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## Contacts

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