

Materials Testing Institute University of Stuttgart

Department of Building Structures and Component Testing

About this organisation

Machine translation

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

Founded in 1884 by Carl von Bach, the Materials Testing Institute (MPA) is the largest central institute at the University of Stuttgart. Organisationally, the MPA is divided into the fields of mechanical engineering and civil engineering, whereby many research and services are carried out on an interdisciplinary basis with the involvement of related departments.

The Department of Building Structures and Component Testing at MPA Stuttgart is a cross-disciplinary department for testing and researching materials and components. It has a wide range of testing facilities for static, dynamic and fatigue tests. Research focuses on issues relating to joining and fastening technology, high-strength and ultra-high performance concretes (UHPC) as well as the load-bearing capacity and fatigue of fibre-reinforced composites and lightweight structures. In addition to classic composite materials made of plastics and metals, the focus is on fibre-bonded components or their components as well as bonded reinforcements for engineering structures.

Pfaffenwaldring 4d
70569 Stuttgart
Baden-Württemberg
Germany
www.mpa.uni-stuttgart.de



Organisation type

University or higher education institution

Sectors



Employees

250 up to 499

Turnover

€10m - €50m

Funding

n/a

Materials Testing Institute University of Stuttgart

Department of Building Structures and Component Testing

About this organisation

Main areas covered	Composite materials, Fibre materials, Composite parts and components, Fracture tests & fatigue tests, Load-bearing behaviour & damage
Infrastructure	Large test hall with clamping field, Fatigue test rigs up to 2500 kN, Tensile and compression test bench up to 15 MN, Climate chambers for humidity and temp.
Certifications	DIN EN ISO/IEC 17025, DIN EN ISO/IEC 17065, notified body according to EU-BauPVO
Keywords	Composite materials - and components, Analysis & component testing, Material testing, Development & optimisation, FE simulation
Memberships	SVA DIBt (facade, fixings), fib (fédération int. du béton), GNB mirror committee, VDI / BV-BS 6205 (transport anchors), NABau fasteners

Overview of lightweighting expertise

Machine translation

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

	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Materials	✓	✓	
Services & consulting Consulting, Testing and trials, Validation, Simulation, Technology transfer, Approval	✓	✓	

Overview of lightweighting expertise

Machine translation

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

	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	
<i>Functional integration</i>			
Measuring and testing technology Component and part analysis, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	
Modelling and simulation Structural mechanics, Materials	✓		
<i>Plant construction & automation</i>			
<i>Recycling technologies</i>			
Manufacturing process			
<i>Additive manufacturing</i>			
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
<i>Forming</i>			
<i>Joining</i>			
<i>Material property alteration</i>			
<i>Primary forming</i>			
<i>Processing and separating</i>			
<i>Textile technology</i>			

Overview of lightweighting expertise

Machine translation

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

	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Biocomposites	✓		
<i>Cellular materials (foam materials)</i>			
Composites Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Short fibre-reinforced concrete, Textile-reinforced concrete	✓	✓	
Fibres Basalt fibres, Glass fibres, Carbon fibres, Metal fibres	✓	✓	
<i>Functional materials</i>			
Metals Aluminium, Steel	✓	✓	
<i>Plastics</i>			
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

Contacts

Machine translation

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

Materials Testing Institute University of Stuttgart

Department of Building Structures and Component Testing

Contacts

Mr Dr.-Ing Veit Birtel

*Head of department for solid construction,
composite construction, fastening technology*

veit.birtel@mpa.uni-stuttgart.de

Mr Dr.-Ing. Dieter Lotze

*Head of Building Structures and Component
Testing Department*

dieter.lotze@mpa.uni-stuttgart.de