New Materials Fürth GmbH

Independent state research institution of the Free State of Bavaria

About this organisation

Machine translation

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

Neue Materialen Fürth GmbH (NMF) is an application-oriented state research centre of the Free State of Bavaria with the aim of implementing new materials and manufacturing processes in industry-oriented solutions in close cooperation with research institutes and partners from industry. At NMF, new manufacturing processes are realised for the first time in pilot plant operation on industrial-grade equipment with unique selling points.

- Electron beam-based additive manufacturing (3D printing) of metals (e.g. Ni, Ti) and intermetallic materials - Production, functionalisation and processing of long-fibre-reinforced thermoplastics (organic sheets) in process chains suitable for series production - Future-oriented forming technologies for customised metal and hybrid components - Magnesium injection moulding & die casting (Mg, Al): Alloy and process development, heat treatment, corrosion protection, hybrid and composite materials - Continuous powder extrusion (Temconex®) for the production of profiles, wires and tubes (e.g. Al, Cu; also chip material and MMCs) - Quality-assured additive manufacturing chain for metal and ceramic components (granulate production, moulding, sintering, post-processing; digital twin) - Design of tools and processes through modelling and simulation - Digitalisation in production - Material testing and characterisation, metallography & analytics

Dr.-Mack-Str. 81
90762 Fürth
Bavaria
Germany
www.nmfgmbh.de

Organisation type
Non-university research institution

Sectors

Employees
10 up to 49

Turnover
€2m - €10m

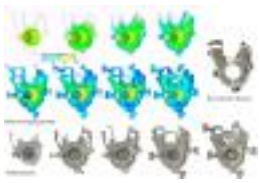
Funding

New Materials Fürth GmbH

Independent state research institution of the Free State of Bavaria

About this organisation










Main areas covered	Additive manufacturing, Long fibre-reinforced thermoplastics, forming technology, Magnesium injection moulding, Continuous powder extrusion, Material characterisation, digitalisation
Infrastructure	Systems for selective electron beam melting, Intermittent hot presses, injection moulding machines, Continuous powder extrusion press, forming presses, Magnesium injection moulding plant, die casting machine, 3D printers, sintering furnaces, CAE tools, test laboratory
Certifications	
Keywords	Organosheets, 3D printing, Magnesium, Simulation, Lightweight sheet metal construction
Memberships	

New Materials Fürth GmbH

Independent state research institution of the Free State of Bavaria

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, Semi-finished parts, Software & databases, Materials	✓	✓	
Services & consulting Training, Consulting, Testing and trials, Prototyping, Validation, Simulation, Technology transfer	✓	✓	
Field of technology			
Design & layout Hybrid structures, Lightweight construction concepts	✓	✓	✓
Functional integration 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 Loads & stress, Optimisation, Processes, Structural mechanics, Materials	✓	✓	✓
Plant construction & automation			
Recycling technologies			

New Materials Fürth GmbH

Independent state research institution of the Free State of Bavaria

Overview of lightweighting expertise

Machine translation

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

	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Electron beam melting, Selective laser melting (SLM, LPBF, ...), Selective laser sintering (SLS)	✓	✓	
Coating (surface engineering)			
Fibre composite technology Others (Long-fibre reinforced thermoplastics (organic sheets), production and further processing on injection moulding machines and forming presses)	✓	✓	✓
Forming Impact extrusion, Compression moulding, Extrusion moulding, Thermal converting, Rolling, Others (Continuous powder extrusion)	✓	✓	
Joining			
Material property alteration			
Primary forming Casting, Pultrusion, Sintering, Injection moulding	✓	✓	
Processing and separating			
Textile technology			

New Materials Fürth GmbH

Independent state research institution of the Free State of Bavaria

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			
Cellular materials (foam materials)			
Composites Aramid fibre composites, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Natural fibre reinforced plastics (NFRP)	✓	✓	
Fibres Aramid fibres, Glass fibres, Carbon fibres, Natural fibres	✓		
Functional materials			
Metals Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium, Others (e.g. nickel, copper, intermetallic materials)	✓	✓	
Plastics Thermoplastics	✓		
Structural ceramics			
(Technical) textiles			

Contacts

Machine translation

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

New Materials Fürth GmbH

Independent state research institution of the Free State of Bavaria

Contacts

Mr Dr.-Ing. Wolfgang Böhm

wolfgang.boehm@nmfgmbh.de