

### About this organisation

#### Machine translation

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

As an in-house institute of Münster University of Applied Sciences, the IKFM pools the materials science expertise of the Departments of Civil, Chemical and Physical Engineering, Mechanical Engineering and Architecture. As a research focus at Münster University of Applied Sciences, the IKFM is characterised by the interdisciplinary and transdisciplinary networking of the professors involved.

The core competences of the IKFM include: - Reactive polymers and speciality systems: polyurethanes, radical-curing high-temperature duromers, intrinsically antimicrobial polymers, PVC, customised compounds - Composites and seals - Analytical and material characterisations - Degradation and service life analyses - Clarification of wear and failure mechanisms (damage investigations) IKFM develops complete solutions for complex R&D issues in the field of applied materials science. The hallmark of the IKFM is the interdisciplinary and flexible collaboration of professors along process and value chains. An important focus is on sustainability through service life and function optimisation, reduction of material and energy consumption and recyclability of materials.

Stegerwaldstraße 39  
48565 Steinfurt  
North Rhine-Westphalia  
Germany

🔗 [www.fh-muenster.de/ikfm/index.php](http://www.fh-muenster.de/ikfm/index.php)

**Main areas covered** Reactive and speciality polymers, radically hardening thermosets, Composite materials and seals, Material analyses, Service life tests

#### Infrastructure

#### Certifications

#### Keywords

#### Memberships



#### Organisation type

University or higher education institution

#### Sectors

No specific sector

#### Employees

50 up to 249

#### Turnover

n/a

#### Funding

### Overview of lightweighting expertise

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|   | Research | Development | Manufacturing<br>& Supply |
|---|----------|-------------|---------------------------|
| <b>Offer</b>  |          |             |                           |
| <b>Products</b><br>Materials  | ✓        | ✓           | ✓                         |
| <b>Services &amp; consulting</b><br>Training, Consulting, Engineering, Prototyping,<br>Validation, Technology transfer, Others<br>(Damage investigations) |          |             | ✓                         |
| <b>Field of technology</b>  |          |             |                           |
| <b>Design &amp; layout</b><br>Lightweight manufacturing, Lightweight design,<br>Hybrid structures   | ✓        | ✓           |                           |
| <i>Functional integration</i>   |          |             |                           |
| <b>Measuring and testing technology</b><br>Component and part analysis, Materials<br>analysis, Destructive analysis, Non-destructive<br>analysis          | ✓        | ✓           |                           |
| <i>Modelling and simulation</i>   |          |             |                           |
| <i>Plant construction &amp; automation</i>  |          |             |                           |
| <i>Recycling technologies</i>   |          |             |                           |

## Overview of lightweighting expertise

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|   | Research | Development | Manufacturing<br>& Supply |
|---|----------|-------------|---------------------------|
| <b>Manufacturing process</b>  |          |             |                           |
| <b>Additive manufacturing</b><br>3D printing, Others (Polymer compounding for plastic 3D printing (filament preparation)) | ✓        | ✓           | ✓                         |
| <i>Coating (surface engineering)</i>  |          |             |                           |
| <b>Fibre composite technology</b><br>Resin infusion process, Resin transfer moulding, Pre-preg processing                 | ✓        | ✓           |                           |
| <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

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|  | Research | Development | Manufacturing<br>& Supply |
|--|----------|-------------|---------------------------|
| <b>Material</b>  |          |             |                           |
| <i>Biogenic materials</i>  |          |             |                           |
| <b>Cellular materials (foam materials)</b>   |          |             |                           |
| Closed-pore  | ✓        | ✓           |                           |
| <b>Composites</b>  |          |             |                           |
| Aramid fibre composites, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP) | ✓        | ✓           |                           |
| <i>Fibres</i>  |          |             |                           |
| <i>Functional materials</i>  |          |             |                           |
| <i>Metals</i>  |          |             |                           |
| <b>Plastics</b>  |          |             |                           |
| Thermoset plastics, Elastomers, Thermoplastics   | ✓        | ✓           |                           |
| <i>Structural ceramics</i>   |          |             |                           |
| <i>(Technical) textiles</i>  |          |             |                           |

### Contacts

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## Contacts

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