



1 Work results from the course.

## FIBER REINFORCED PLASTIC MANUFACTURER (FRP-MANUFACTURER)

### Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM – Adhesive Bonding Technology and Surfaces –

Wiener Strasse 12  
28359 Bremen | Germany

Institute director  
Prof. Dr. Bernd Mayer

Contact  
Workforce Qualification  
and Technology Transfer  
Training Center for Fiber Composite  
Technology  
Claas Hoffmann  
Phone +49 421 5665-461  
faserverbund-lernen@ifam.fraunhofer.de  
[www.bremen-composites.com](http://www.bremen-composites.com)  
[www.ifam.fraunhofer.de](http://www.ifam.fraunhofer.de)

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### Objectives of the training course

The Fiber Reinforced Plastic Manufacturer course teaches participants how to manufacture high-quality FRP components using manual production methods. The classroom work focuses on extending and consolidating practical know-how. The theoretical background knowledge required for working with fiber reinforced plastics is learned via the so-called digital introductory learning program. This is accessed online or via the special Learn-App.

### Duration of the training course and examination

The total duration of the course, including the examinations, is 40 hours (one week). The theoretical content of the digital introductory learning program is an integral part of the course and is required for the

classroom work. The course ends with oral and practical examinations on the last day of the course. A prerequisite for taking the examinations is regular attendance at the course sessions.

### Target groups and preconditions for participation

The course is aimed at company employees whose work involves the manufacture of fiber reinforced plastics and at those who wish to enter this technical field. Participants must have adequate knowledge of the course language to enable them to understand the course material and take the examinations.



## COURSE CONTENT

### Fundamentals

The fundamental features of fiber reinforced plastics are largely covered in the digital introductory learning program. This gives participants a basic knowledge of the various components (fibers and matrix materials).

### Materials

The course participants learn how the various components of fiber reinforced plastics affect the resulting properties of FRP products. Based on this knowledge, key points for handling FRP materials are highlighted.

### Manufacturing methods

The course participants are taught theoretical and practical aspects of manual manufacturing methods. This covers various components and geometries and also the effective machining of FRP components. The identification and prevention of potential sources of errors and defects are discussed. The proper use of work equipment and personal protection equipment is also covered.

### Safety and environmental protection

Safety measures to be taken when working with fibers and plastics, and regarding the auxiliary materials which are used in repair and manufacturing processes, are discussed. The proper use of work equipment and protective equipment is also covered.

### Certification and accreditation

| The Division of Adhesive Bonding Technology and Surfaces is accredited according with DIN EN ISO 9001, and the laboratories for material testing, corrosion testing, and paint/lacquer technology are further accredited in accordance with DIN EN ISO/IEC 17025.

2 *The identification and prevention of potential sources of errors and defects are key aspects of the FRP-Manufacturer training course.*