40 years of expertise in laser safety and laser technologies, serving your most critical challenges.

Plastics and Polymer Welding

Ref: AL.2-6

Laser welding is now an operational joining method for thermoplastics. This fully mastered technology offers numerous possibilities and meets a wide range of requirements such as speed, quality, flexibility, precision and appearance quality.

Practical information

DATES (INTER-COMPANY / IN-HOUSE / E-LEARNING)
On request

ORGANISATION
IREPA LASER - Strasbourg / Illkirch

DURATION
2 days (14 hours)
Starts at 1.30 pm

PRICES
1790€ excl. VAT

TECHNICAL/TEACHING LEAD:
Franck RIGOLET

DO YOU HAVE A DISABILITY?
Contact our disability officer at referent.handicap@irepa-laser.com

Key information

PREREQUISITES
Technical knowledge of polymers.

ACCESSIBLE LASER CLASSES
/

CERTIFICATION
Certificate of completion issued.

TECHNICAL/TEACHING LEAD:
Franck RIGOLET

Training objectives

- Master the behaviour of thermoplastic materials under the laser beam.

- Prepare the welding operation.
- Master the operating parameters and assess their influence.
- Analyse and correct welding defects.
- Define the laser sources dedicated to joining thermoplastics.

Target audience

Engineers, technicians, current or future users of laser welding systems wishing to acquire the essential skills to optimise process quality and performance.

Programme

over 2 days

Lasers and Technology
• Lasers used
• Optical principles
Safety awareness
Joining techniques
• Principle of polymer joining
• Common bonding and welding techniques
• Welding thermoplastics
• surface preparation
Practical implementation
• Laser joining of thermoplastics
• Operating parameters and their influence
• Quality of laser welding of thermoplastics
Plastics
• Definition and classification
• Families, properties and processing
• Specific applications
• Additives and reinforcements
Laser welding of plastics
• Behaviour of polymers
• Laser devices and equipment
• Welding principle and methodology
• Quality of welded joints