



**Leister  
Applications  
Laboratory.**

**Competent  
and objective.**



# Be on the safe side with Leister.

Many of our customers have specific questions on the suitability of plastics for the most varied applications. This considerable demand is addressed in the Leister Applications Laboratory. Enquiries are processed in an ideal environment. In addition, the quality of the Leister devices available on the market is permanently investigated; new developments are tested and modified as required.

## Hot-air and heated wedge technology.

Customer requested tests are carried out in the field of hot-air and heated wedge technology. Almost every conceivable welding situation can be simulated in the well-equipped Applications Laboratory. All the Leister hand welding tools, welding machines and hand extruders are available to process your enquiries and provide you with a prompt answer. We also develop special solutions for you in collaboration with the Development and Design Departments.



Tests with a welding machine.



GLOBO welding – the latest laser welding technique from Leister.

## Laser application.

With our many years of experience, we can help you in the field of laser transmission welding and laser soldering. We can test component geometries and suitable material combinations for you. Here we have a wide range of laser welding techniques at our disposal, from contour, simultaneous, quasi-simultaneous, mask and rotation welding through to GLOBO welding. And laser soldering enquiries are also covered. The Laser Application Laboratory, of course, has access to the latest systems, to be in a position to advise you on process development and optimisation. As a special service, we can realize small series and manufacture prototypes for you in the «Job Shop».

## Scope of functions of the Leister Applications Laboratory

- Hot-air technology trials
- Heated wedge technology trials
- Trials in the fields of laser welding and laser soldering
- Characterisation of welded joints
- Development of special solutions
- Laser applications «Job-Shop»



Leica microscopy with up to 630x magnification.



Peel testing with welded plastic specimens.

### High-tech for advancement.

The Leister Applications Laboratory is equipped with high-tech test equipment for weld characterisation. The 20 kN tensile and compressive testing system allows tensile and peel tests to be carried out. 3-point bending trials or the complete measurement series of «Technological Bending Tests» can be undertaken. The melt flow of plastics under different loads is compared with the «melt flow indexer». We produce thin and ground sections of welded components. They are characterized under magnification of up to 630x. A viewer is available in the applications area for an initial impression of the weld.

### Laboratory tests for weld characterisation

- Tensile trials
- Compressive tests
- Bending trials
- Peel tests
- Melt flow index
- Thin and ground sections
- Microscopy

Process optimisation in laser welding.



### Analysis and process control.

We are in a position to carry out all tests of relevance for you for analysis and process control. Through the combination of hot-gas, heated wedge and laser applications, we can address almost all your enquiries and offer you solutions to your problems in the field of plastic welding. The welding samples are tested with competence and objectivity. All jobs are logged and handled with confidentiality.

Transverse ground section through a 2 mm wide laser weld.





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Our close worldwide network of more than 120 Sales and Service Centres in more than 60 countries.