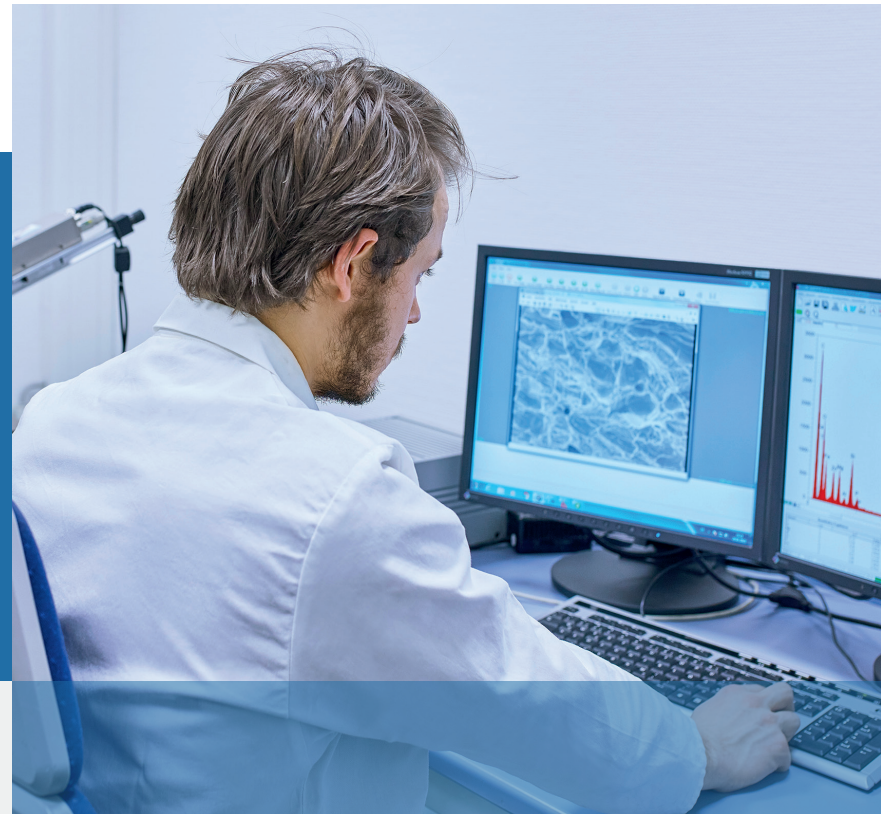


## About us

RST is an independent, medium-sized company and offers highly specialised materials testing and engineering services for all industries. RST supports developers and manufacturers from product development and market launch to quality control during production and maintenance.



TESTING THE WORLD FOR TOMORROW



## Exactly, what you need

### Purchasing

Our optimised processes guarantee you fast and smooth processing of your order without long wait times. Our wealth of experience is based on countless test orders successfully completed for a wide range of customers. Our in-house test frame production as well as our in-house calibration laboratory guarantee the highest flexibility and cost efficiency.

### Project management

We are always at your side – even in the event of unexpected changes to the planned test sequence, necessary rework and adjustments to the test specimen, and tight deadlines. You can rely on responsive communication with our testers and engineers. You are welcome to personally observe your tests being completed on site or via video transmission.

### Quality management

Our competent and experienced testing staff is ready for any challenge. Our flexible accreditation allows us the widest possible choice of standardised test procedures. RST creates complex and customised test and trial plans with you. We prepare our test reports in German, English and French.

## Materials laboratory

We check material and material properties

RST tests your materials and products to evaluate their properties using various destructive and non-destructive testing methods. We test during development and production for all industries.

### RST Rail System Testing GmbH

Walter-Kleinow-Ring 7  
16761 Hennigsdorf

T +49 (0)3302 49982-0  
F +49 (0)3302 49982-15

info@rst-labs.de  
www.rst-labs.com

### Materials laboratory

T +49 (0)3302 49982-40  
werkstoff@rst-labs.de



Accreditation valid for scope according  
to document system D-PL-11012-01-00







## Material testing

We provide proof of material and material properties and verify them for all industries. RST supports customers in industry, the energy sector, railway technology, the automotive industry and aviation and shipping.

## Test methods

### Mechanical-technological testing

In order to test **strength properties** and **elongation behaviour**, RST carries out mechanical material tests such as tensile and compression tests as well as hardness tests. We investigate **toughness** with notched bar impact tests with an impact energy of up to 150 J and temperatures from RT to -40 °C. For **welding or soldering seam checks** and the test for intercrystalline corrosion, we carry out a bending test.

### Chemical analysis

We use the **emission spectroscopy** method to determine the chemical composition of iron-, aluminium- and copper-based materials. Furthermore, we can determine the content of carbon and sulphur in cast iron by means of combustion.

### Non-destructive testing

RST offers non-destructive material testing for all common methods, from **X-ray testing**, **ultrasonic testing** and **magnetic particle testing** to **dye penetrant testing** and **visual inspection** – either stationary or mobile throughout Germany.



### Damage analysis to VDI 3822

We offer **comprehensive damage analyses** – for manufacturers, the insurance industry and trade alike. With systematic damage analysis based on material-technical examinations, we get to the bottom of causes of damage and material fatigue. We differentiate between **misuse, assembly and material defects**.

### Metallographic examination

We describe the material structure qualitatively and quantitatively. With the help of **reflected light microscopy** and stereo microscopy, we also identify geometric parameters. Metallographic examinations provide insights into the macroscopic and microscopic **microstructure of samples**, layer thicknesses, graphite formation, porosities and conspicuous features such as corrosion or cracks.

### Scanning electron microscopy

RST examines surfaces with regard to their wear, corrosion and microfractographic fracture surfaces. We distinguish between toughened, brittle fracture and enamel surfaces, among others. In the scanning electron microscope, we can perform **micro-area analysis** of surface layers, coatings and particles using **EDX**.