



Industrie Service

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Mechanical-technological Tests

During the planning, construction and operation of technical facilities and components a lot of factors have to be taken into consideration.

In addition to design and construction, the characteristics and processing of the used material play an important role. Materials are subject to mechanical-technological, thermal, wear and corrosive influences, all of which may lead to the component's failure. Don't take any risk here! Have your materials analysed and evaluated for the designated application, for their processing characteristics and their conditions. TÜV SÜD offers extensive methods for materials testing and analyses.

TÜV SÜD services

Within the scope of examining and consulting services in materials technology as well as failure analysis the accredited laboratories of TÜV SÜD offer the following mechanical-technological tests:

- tensile tests as per DIN EN 10002-1
 - determination of mechanical characteristics of standardized specimen, wires, tubes, screws
 - in-house sample and test specimen repair
 - graph of results
- bending tests as per DIN EN ISO 7438

- impact tests as per DIN EN 10045-1
 - determination of impact characteristics at temperatures from -196 °C to $+150\text{ °C}$
 - determination of fracture structure
 - use of a pendulum with an energy capacity of 150 J and 300 J
 - judgement of welds and behaviour of components
- hardness tests as per DIN EN ISO 6506-1, 6507-1, 6508-1
 - determination of the Brinell, Vickers and Rockwell hardness
 - reevaluation of hardness results into tensile strength results
 - investigations
 - micro hardness test
 - on-site hardness test according to the Vickers penetration method (ultrasonic contact impedance method)

Your Benefits

By combining different methods of material investigations we offer results on

- ▶ the aptitude of the material with reference to the purpose of application
- ▶ the processing characteristics of the material
- ▶ the condition of the material.

Our laboratories are accredited as per DIN EN ISO/IEC 17025 and as an inspectorate type A as per DIN EN ISO/IEC 17020.

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