



MECHANICAL MATERIALS TESTING

Cornerstone of structural materials

Determination of stiffness and resilience of materials

OUR SERVICES

- Tensile testing acc. to EN 6892-1
- Strain and tension-controlled tensile test
- Compression and bending test
- Wide parameter window (force up to 250kN, temperatures from -160°C to 300°C - during tensile test, temperature range compression and bending tests on request)
- In-house production of sample holders for special requirements (for example peeling tension)
- Brinell hardness testing to complete the mechanical characteristic value profile of materials

PLANTS

- tensile testing machine ZWICK 100 kN
- tensile testing machine ZWICK 250 kN
- Pendulum machine
- Hardness tester for Brinell
- Vickers & Rockwell

TESTING METHODS

- EN ISO 6892-1
- EN ISO 6506-1



TEST PROCEDURE	PERFORMANCE PARAMETERS	APPLICATION
Tensile/compression/bending test	<ul style="list-style-type: none"> • Accuracy class ≤ 0.5 • Interval: 0 to 250kN • Test room: 600x2000mm • R/N value determination • Test speeds up to 2500 mm/sec 	<ul style="list-style-type: none"> • Material characteristics determination • Testing of components
Tensile/compression/bending test at reduced/elevated temperature	<ul style="list-style-type: none"> • Accuracy class 1.0 • -160°C to +300°C (+/-5°C) - during tensile test • 0 to 250kN 	<ul style="list-style-type: none"> • Testing of materials and components under real thermal conditions
Specialised testing procedure	<ul style="list-style-type: none"> • Wide range of special sampling • In-house production at LKR 	<ul style="list-style-type: none"> • Peeling tension for testing of joints • Special geometries of components • Material combinations
Hardness test	<ul style="list-style-type: none"> • Brinell method 	<ul style="list-style-type: none"> • Material characteristics determination

As a subsidiary of AIT **LKR Leichtmetallkompetenzzentrum Ranshofen GmbH** is pursuing a holistic research and development approach to lightweight construction in the vehicle sector - from new metal alloys and process technology to material-related structural design.



This makes LKR a powerful and independent partner for your development projects.

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