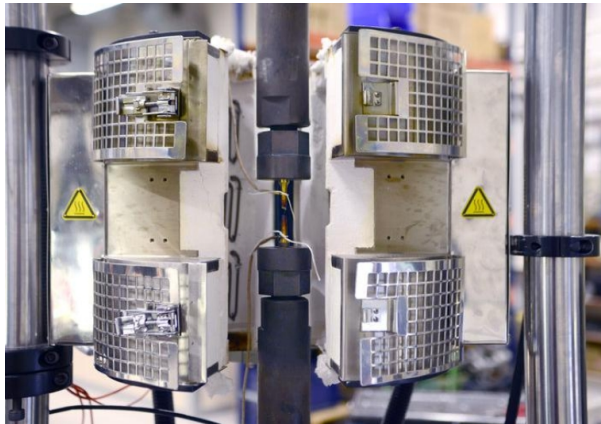


Metallic Materials Testing

End-to-end metal testing solutions to characterize material behaviour and optimize your components and end products.



Regardless of the industry, to get the most out of a metallic component or product you need to characterize the metal's properties to predict its in-service behaviour. Doing so will optimize your product's lifespan and functionality and can help you improve your manufacturing processes too.

SPECIALIST METAL TESTING TO SERVE EVERY PURPOSE

Our experts take pride in providing a turnkey service, with speedy turnaround times and the minimum possible disruption to your production and operating schedules.

Our metallic material testing supports in:

- RandD
- Innovation programs
- Regulatory compliance, under standards such as EN, ISO, ASTM, DIN and MIL-STD, amongst others
- Meeting client specifications such as AITM, SP, GD, DNV and API, amongst others
- Manufacturing process quality control
- Failure Analysis
- Welder Performance Qualification (WPQ)
- On-site metallographic testing and analysis (material recertification, including replication)

We test all types of metals, alloys, compounds and welds, and use our expertise to tailor our service to the needs of each client – whether it's for application in Aerospace (for which we are NADCAP accredited), Automotive, Defense, Renewable Energies, Construction or Oil and Gas.

A GLOBAL NETWORK OF ACCREDITED METAL TESTING LABORATORIES

Our material testing labs span Europe, North America and Asia, and each one is fully accredited and fully equipped for whichever testing your metallic material requires. We also offer a test specimen preparation service, covering machining and test tool design and manufacturing.

Our testing capabilities include:

Mechanical Testing

- Tensile (Strength, Modulus)
- High Temperature/Humidity Tensile (Strength, Modulus)
- Torsion
- Compression (Strength, Modulus)
- Flexural/Bend
- Shear
- High Cycle Fatigue (S-N curves, Wöhler curves)
- Low Cycle Fatigue (-N curves, Wöhler curves)
- High Temperature/Humidity Fatigue
- Creep
- Stress Rupture
- Fracture toughness (KIC, CTOD, J-R Curve, R-Curve)
- Crack propagation (dA/dN)
- Impact (Charpy)

Chemical Analysis

- Optical Emission Spectrometry (OES)
- Positive Material Identification (PMI) / Mobile OES
- Positive Material Identification (PMI) / X-Ray Fluorescence (XRF)
- Inductively Coupled Plasma (ICP)

Metallographic Examinations and Fractography

- Metallographic Sample Preparation
- Micro and Macro Examinations
- Microetching and Macroetching of Metals and Alloys
- Grain Size
- Inclusions
- Decarburization
- Cementation Depth
- Alpha Case
- Effective Case Depth
- IGA / IGO
- Oxidation
- Local Thickness
- Scanning Electron Microscopy (SEM - EDX)

Hardness Testing

- Brinell Hardness
- Rockwell Hardness
- Microhardness
- Vickers Hardness
- Knoop Hardness

Corrosion Testing

- Intergranular Corrosion Resistance
- Salt Spray (NSS, CASS, AASS)

Non-Destructive Testing (NDT)

- Ultrasonic
- Automated Ultrasonic (AUT)
- Immersion Ultrasonic (IUT)
- Magnetic Particle
- Eddy Current
- Penetrant