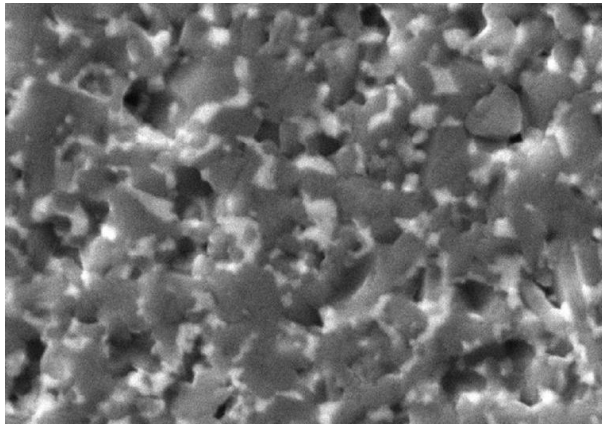


Materials Analysis

The Applus+ Materials Centre operates a complete materials analysis facility and service. Our experienced staff and equipment allow the analysis of various types of materials, including metals and alloys, ceramics, polymers and elastomers, and various composites.



THE Applus+ SOLUTION

Specific test equipment available in-house includes:

- Portable Optical Emission Spectrometer with Fe, Ni and Cu matrices
- Portable XRF Spectrometers
- Optical microscopy, including low magnification stereo zoom and high magnification microscopes
- Scanning electron microscope with Energy Dispersive Spectroscopy analysis
- 60 tonne Servo-Hydraulic Universal Testing Machine with Computer Control
- 500kg Electro-Mechanical Universal Testing Machine for polymers and elastomers
- Charpy Impact Tester
- Vickers Hardness Testing (5-250kg test loads)
- Vickers Micro-Hardness Testing (15-500gram test loads)
- Shore A and Shore D Polymer Hardness Testing
- High temperature vacuum/inert gas furnace for specialised heat treatment of samples and product development studies

Materials Analysis can be used to determine the following:

- Confirmation of supplied materials to original specification
- Certification of materials
- Certification of welds
- Manufacturing improvement
- Comparison of material grades against performance conditions and requirements



- Measurement of residual life of installed components
- Investigation of unknown materials and manufacturing methods
- Wear studies and analyses
- Corrosion studies and analyses

Target customers

Conducting an independent materials analysis allows the chemical, mechanical and microstructural properties of products and equipment to be determined and checked against required standards and specifications.

Key customer benefits

Key Benefits the Applus Materials Centre provides are focused investigations and testing, utilising our experience and training, to provide an overall lower cost of analysis with targeted results.