







Smiths Technical Services

Our UKAS Accredited Testing Laboratory



COMPREHENSIVE METALLURGICAL SUPPORT

Our UKAS accredited materials testing laboratory offers a wide range of in-house services. Our metallurgists provide consultancy services in a selection of application areas, from routine testing to technical advice.

Our dedicated team of metallurgists are based at our new facility in Biggleswade, Bedfordshire. We offer a broad range of tests which are entirely UKAS accredited, and provide outstanding metallurgical support for our business customers.

EXPERTS IN TESTING

We provide UKAS accredited tests including chemical analysis, metallurgical and corrosion, hardness and Charpy impact testing.

We also undertake both single-event materials testing and on-going sampling programmes that are tailored to fit customer requirements. We understand our customer requirements and have experience within a wide range of industries; this gives us the ability to offer all our customers, large and small, a high-quality, cost-effective service.

Very few metal stockholders offer in-house laboratory services, but at Smiths High Performance, testing services are provided to you as standard.

Our services afford numerous benefits to our customers. Our laboratory is tied in with our quality management system to offer a much broader continuity of service. Speed of response, peace of mind, technical advice from our team of metallurgists are all benefits of our state of the art facility.

TESTING ROUTINES

We undertake both single-event materials testing and on-going sampling programmes that can be tailored to fit a customer's requirements. Also, we offer testing routines for specific customer applications enabling us to offer a supply route for materials with unique certification requirements.

CONTINUOUS INVESTMENT

Having invested in modern, computer-controlled testing equipment we are able to offer a fast turnaround on most testing requirements. We aim to understand all customer requirements and have experience within a wide range of industries; this gives us the ability to offer all our customers, large and small, a high-quality, cost-effective service.

EXAMPLE CASE STUDY

A customer took a new batch of material from Smiths HP which was to be machined on a CNC lathe with an automatic feed.

The customer subsequently reported that there was a problem with the material, as it was badly pitted after machining. Our metallurgists took a test piece of the material for further analysis. After microscopic inspection and further testing, it was found that there was nothing wrong with the quality of the material - the pitting was being caused by the production of excess swarf in the machining process, which was damaging the material during production.

We reported back to the customer with our finding, and a simple tooling setup change resolved the problem.



TESTING METHODS

From tensile testing to chemical analysis

Our UKAS accredited testing laboratory offers a wide range of tests which are available for our customers.

We provide third party inspection services too.





DEDICATED FACILITY

Our laboratory represents decades of continual investment

Our laboratory forms part of Smiths Technical Services and all procedures are carried out at our new dedicated facility facility in Biggleswade. Tensile Testing 30 Tonne Tensile Tester (ASTM E8, A370 & ASTM B557, BS EN ISO 6892-1 & BS EN 2002-1) Elevated Temperature Tensile Testing facilities to 200°C (ASTM E21 & BS EN ISO 6892-2)

Charpy Testing

300J Impact Tester (ASTM E23 & A370 respectively) Cryogenic Cooling down to minus 60°C

Metallurgy
Analysis
&
Corrosion
Testing

Metallurgical Microscopes, sample preparation equipment and associated equipment to allow:

Metallurgical Evaluation to ASTM A923 Method A Phase Balance Analysis to ASTM E562 Corrosion Testing to ASTM G48 + A923 Method C Grain Size Analysis to ASTM E112

Weldment Assessment Testing Welder qualification testing and weld procedure qualification testing can be carried out:

BS EN ISO 9606-1, BS EN ISO 15614-1, BS EN ISO 17639, BS EN ISO 9015-1 & *BS EN ISO 6520-1.

Physical Properties Testing

Magnetic Permeability Testing
Hocking Electrical Conductivity Testing
Fischer Ferrite Testing
*GAMMA-SCOUT Radiation Detector (Geiger Counter)

Hardness Testing

We also provide Vickers (HV10 & HV30), Rockwell (B+C) and Brinell Hardness Testing (10/3000)

Chemical Analysis Spectro Maxx Spark Emission Spectrometer for analysing:

Iron Base, Copper Base, Nickel Base, Aluminium Base Titanium Base Materials Analysis in accordance with: *BS EN 14726, *ASTM E1086, *ASTM E415, *ASTM A751, *ASTM E1251 & *BS EN 15079

XRF Positive Material Identification

^{*} Not UKAS Accredited



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