

Certificate of Accreditation



Howmet Ltd

Testing Laboratory No. 0142

Is accredited in accordance with International Standard ISO/IEC 17025:2017 – General Requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope specified in the schedule to this certificate, and the operation of a management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017). The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued.

The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from www.ukas.com.

This accreditation is subject to continuing conformity with United Kingdom Accreditation Service requirements.

A handwritten signature in black ink, appearing to read "M Gantley", is written over a horizontal line.

Matt Gantley, *Chief Executive Officer*
United Kingdom Accreditation Service

Initial Accreditation: 1 May 1982
Certificate Issued: 25 January 2024



Scan QR Code to
verify

issued by

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK



Accredited to
ISO/IEC 17025:2017

Issue No: 037 Issue date: 20 March 2025

**Exeter Alloy
Heron Road
Exeter
Devon
EX2 7LL**

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E-Mail: andy.messenger@howmet.com

Testing performed at the above address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
NICKEL BASE ALLOYS	<u>Chemical Tests</u> Elemental analysis Aluminium Chromium Cobalt Copper Hafnium Iron Manganese Molybdenum Nickel Niobium Palladium Phosphorus Platinum Rhenium Ruthenium Silicon Tantalum Titanium Tungsten Vanadium Yttrium Zirconium Cerium Silicon Phosphorus Boron Lanthanum Calcium Magnesium Aluminium	Documented In-House Methods from Materials Control Laboratory Manual (MCLM) using: XRFs (294) XRFs (298) XRFs (298) Spark OES (301)



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
NICKEL BASE ALLOYS (cont'd)	<u>Chemical Tests</u> (cont'd) Elemental analysis (cont'd) Carbon Sulphur Nitrogen Oxygen Lithium Beryllium Magnesium Phosphorus Sulfur Chlorine Calcium Scandium Manganese Copper Zinc Gallium Germanium Arsenic Bromine Selenium Rubidium Yttrium Rhodium Palladium Silver Indium Tin Antimony Iodine Tellurium Cesium Lanthanum Cerium Praseodymium Neodymium Samarium Europium Gadolinium Terbium Dysprosium	 Combustion and Infra-Red Absorption (300) Inert Gas Fusion (299), (302) Glow Discharge Mass Spectrometry (303)



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NICKEL BASE ALLOYS (cont'd)	<u>Chemical Tests</u> (cont'd) Elemental analysis (cont'd) Holmium Erbium Thulium Ytterbium Lutetium Rhenium Osmium Iridium Platinum Gold Mercury Thallium Lead Bismuth Thorium Uranium Potassium Ruthenium Cadmium	Glow Discharge Mass Spectrometry (303)



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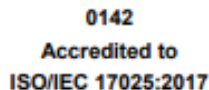
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METALS, ALLOYS AND METAL PRODUCTS	<u>Mechanical Tests</u> Vickers Hardness (HV 30) Rockwell Hardness (HRC) Stress Rupture (700°C -1050°C) Tensile tests Ambient Temperature (Range 0.1 - 50kN) Elevated Temperature (650 °C and 850 °C) Excluding the determination of Young's Modulus	BS EN ISO 6507-1:2023 ASTM E92 - 23 BS EN ISO 6508-1:2023 ASTM E18-24 BS EN 2002-005:2007 ASTM E139-11(2018) BS EN ISO 204:2023 BS EN ISO 6892-1:2019 ASTM E8/E8M-2024 BS EN 2002-2:2005 BS EN ISO 6892-2:2018 ASTM E21-20
END		