

Certificate Ref: 3000424649

Order Ref: PO-04232  
Received: 25/05/2021  
Issue Date: 09/06/2021

For the attention of: Leah Hatch  
K & S Aerospace Components  
Unit 14 Eddystone Road  
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SO40 3SA



Ashley Payne  
Metallurgical Technician

**BUTT WELDED NICKEL ALLOY SHEET**  
**Material Advised - MSRR 7001 (Inconel 718)**

Welded By : G Winter  
Welder ID : KS03  
Welding Process : TIG - ISO 24394-141-S-PA1-B-T1.0  
Filler Rod : 9500/220  
DPI Examination Certificate: : N149099LIQ1  
Carried out by another UKAS laboratory prior to arrival at Keighley Laboratories.  
Radiographic Examination Certificate: : N149099RAD1  
Carried out by another UKAS laboratory prior to arrival at Keighley Laboratories.  
Visual Examination Certificate: : N149099VIS1  
Carried out by another UKAS laboratory prior to arrival at Keighley Laboratories.

**Weld Test**

Overall Result Acceptable

**Visual Examination**

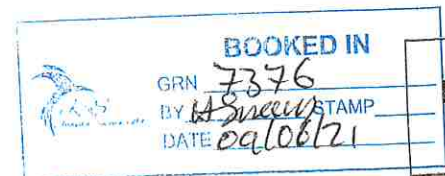
Condition As Welded  
Magnification Up to x25  
Result Acceptable



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**Tensile Test**

Laboratory Temperature 19 °C  
Dimensions a x b 25.0 x 1.00 mm  
Area So 25.0 mm<sup>2</sup>  
Maximum Force Fm 21.08 kN  
Tensile Strength Rm 680 N/mm<sup>2</sup>  
Tensile Strength Rm 98.5 ksi  
Broke Adjacent to weld  
Result Acceptable - providing tensile strength meets the design requirements



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When a certificate of conformity is required, and where guidance from the material/testing specification is not available, the Simple Acceptance Rule (ILAC - G8:09/2019) will be applied for borderline results that are within the uncertainty budgets for the test carried out as detailed within KLL procedure QP006 Appendix 1 (Guard band zero: Risk less than 50 % Probability of False Accept).

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Page 1 of 2

Results relate only to the item(s) tested.

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### Bend Test

Laboratory Temperature	19 °C
Bend Radius	2 x thickness
Face Bend	Bent 180° without cracking.
Result	Acceptable

### Metallographic Examination

Magnification	x7 - x500
Etchant	Super Kallings Reagent
Section(s) assessed	1
Result	Acceptable

### Note

Test Schedule: C.A.A. - British Civil Airworthiness Requirements Chapter A8-10 as applicable.  
Test Schedule: British Standard BS ISO 24394:2018 as applicable.  
Test Schedule: Rolls Royce plc. - RPS 912 Issue 18 as applicable.

\*\*\* END OF DOCUMENT \*\*\*

When a certificate of conformity is required, and where guidance from the material/testing specification is not available, the Simple Acceptance Rule (ILAC - G8:09/2019) will be applied for borderline results that are within the uncertainty budgets for the test carried out as detailed within KLL procedure QP006 Appendix 1 (Guard band zero: Risk less than 50 % Probability of False Accept).

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Page 2 of 2

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