

Certificate Ref: 3000420634

Order Ref: PO-04009
Received: 28/10/2020
Issue Date: 14/11/2020

For the attention of: Paul Holmes
K & S Aerospace Components
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Matthew Mellor
Technical Services Director

BUTT WELDED NICKEL ALLOY SHEET

Material Advised - C263*

***Full specification not advised**

Welded By : J Gooch
Welder ID : KS09
Welding Process : TIG
Filler Rod : MSRR 9500/16
Job Number : 01848

Weld Test

Overall Result Acceptable

Visual Examination

Condition As Welded
Magnification Up to x25
Result Acceptable

Tensile Test

Laboratory Temperature		20 °C
Dimensions	a x b	25.02 x 1.23 mm
Area	So	30.8 mm ²
Maximum Force	Fm	24.5 kN
Tensile Strength	Rm	827 N/mm ²
Tensile Strength	Rm	120 ksi
Broke		Clear of weld
Result		Acceptable - providing tensile strength meets the design requirements



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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Results relate only to the item(s) tested.

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Bend Test

Laboratory Temperature	21 °C
Bend Radius	2 x thickness
Face Bend	Bent 180° without cracking.
Result	Acceptable

Metallographic Examination

Magnification	x7 - x500
Etchant	B.O.S.
Section(s) assessed	1
Result	Acceptable

Note

* Although the welding is deemed to be acceptable to the criteria specified, the size of the test plate received did not comply with the minimum required by ISO 24394:2018.

Test Schedule: C.A.A. - British Civil Airworthiness Requirements Chapter A8-10 as applicable.

Test Schedule: Rolls Royce plc. - RPS 912 Issue 18 as applicable.

Test Schedule: British Standard BS ISO 24394:2018 as applicable.

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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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