

Certificate Ref: 3000420630

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

For the attention of: Paul Holmes
K & S Aerospace Components
Unit 14 Eddystone Road
South Hants Industrial Park
SOUTHAMPTON
Hampshire
SO40 3SA



Matthew Mellor
Technical Services Director

BUTT WELDED NICKEL ALLOY SHEET
Material Specification - Inconel 625

Welded By : K Hatch
Welder ID : KS01
Welding Process : TIG
Filler Rod : MSRR 9500/237
Job Number : 01838

Weld Test

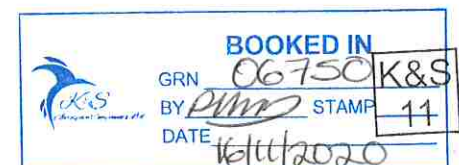
Overall Result Acceptable

Visual Examination

Condition As Welded
Magnification Up to x25
Result Acceptable

Tensile Test

Laboratory Temperature		20 °C
Dimensions	a x b	25.04 x 1.23 mm
Area	So	30.8 mm ²
Maximum Force	Fm	27.3 kN
Tensile Strength	Rm	888 N/mm ²
Tensile Strength	Rm	129 ksi
Broke		Adjacent to 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).

Certificate must not be reproduced, except in full, without the written approval of Keighley Laboratories Limited
Page 1 of 2

Results relate only to the item(s) tested.

Certificate Ref: 3000420630

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

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.

*** 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).

Certificate must not be reproduced, except in full, without the written approval of Keighley Laboratories Limited

Page 2 of 2

Results relate only to the item(s) tested.

Registered Office: Croft House, South Street, Keighley, West Yorkshire BD21 1EG • Registered in England No 164811
T:01535 664211 • F:01535 680604 • E: info@keighleylabs.co.uk • www.keighleylabs.co.uk