

Certificate Ref: 3000412263

Order Ref: PO-03482
Received: 23/09/2019
Issue Date: 07/10/2019

For the attention of: Leah Hatch
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 718

Welded By : K Hatch
Welder ID : KS01
Welding Process : TIG
Filler Rod : MSRR 9500/220
Job Number : 1667

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 25.0 x 1.03 mm
Area So 25.8 mm²
Maximum Force Fm 21.67 kN
Tensile Strength Rm 840 N/mm²
Tensile Strength Rm 121.8 ksi
Broke Adjacent to weld
Result Acceptable - providing tensile strength meets the design requirements

GRN05586
Lhatch
8/10/19.



Decision Rule - Zero guard band approach implemented where applicable.
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Bend Test

| | |
|------------------------|-----------------------------|
| Laboratory Temperature | 20 °C |
| Bend Radius | 2 x thickness |
| Face Bend | Bent 180° without cracking. |
| Result | Acceptable |

Metallographic Examination

| | |
|---------------------|------------|
| Magnification | x50 - x500 |
| Etchant | B.O.S. |
| Section(s) assessed | 1 |
| Result | Acceptable |

Note

N/A

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.

*: All information transcribed from samples

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