AMS 5662, AMS 5663 | Nickel Alloy 718 Bar

Typical Applications

Land based gas turbine engines

Jet Engines

Fasteners

Instrumentation parts

Mandrels

Well head completion equipment

Alloy 718 (alternatively known by Special Metals trade name Inconel 718), is a nickel chromium alloy (AMS 5662, AMS 5663) which can be heat treated to give high strength, good corrosion resistance and is readily fabricated into complex parts with a very good resistance to postweld cracking.

Alloy 718 can work effectively between -423 to 1300 deg F.

Related Products

Alloy 200 201

Alloy 625 Bar

Alloy 625 Sheet And Plate

Alloy 718 Bar

Alloy 718 Sheet Plate

Alloy 75

Alloy 80A

Alloy X750

Alloy X Bar

Alloy X Sheet Plate

C263

Mp159 R Bar

Mp35N R

Rene 41

Waspaloy

Alloy 90

Alloy 901

Alloy 625

Alloy 718

Alloy X

Technical specification

Related Specifications - Bar

AMS 5662

AMS 5663

UNS N07718

ASTM B637

W.Nr 2.4668

MSRR 7114

MSRR 7115

NACE MR0175

Related Specifications - Sheet and Plate

AMS 5596

AMS 5597

UNS N07718

ASTM B670

Specific Gravity

7.98 g/cm3

Chemical Composition (WT %)

	Min	Max

Ni	50	55
Cr	17	21
Fe	Bal	-
Mo	2.8	3.3
Nb+Ta	4.75	5.50
C	-	0.08
Mn	-	0.035
Si	-	0.35
Ph	-	0.015
S	-	0.015
Ti	0.65	1.15
Cu	-	0.30
B	-	0.0006
Al	0.20	0.80
Co	-	1.00

Mechanical Properties in Solution Annealed and Aged Condition for Aerospace bar

0.2% Proof Stress	MPA	Min	1034
Tensile Strength	MPA	Min	1275
Elongation	%	Min	12
Reduction of area	%	Min	15

Hardness	HB	Min	331

Mechanical Properties in Solution Annealed and Aged Condition for Oil patch bar

0.2% Proof Stress	MPA	Min	827
Tensile Strength	MPA	Min	1034
Elongation	%	Min	17
Reduction of area	%	Min	25
Hardness	HB	Min	40

Mechanical Properties in the solution treated and precipitation heat treated condition - Sheet and Plate

0.2% Proof Stress	MPA	Min	1035
Tensile Strength	MPA	Min	1240
Elongation	%	Min	12

Mechanical Properties in the annealed condition - Sheet and Plate

			Sheet and strip	Plate
0.2% Proof Stress	MPA	Max	550	725
Tensile Strength	MPA	Max	965	1035

Elongation	%	Min	30	30

Need more information? ***Get in touch***

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