

NICKEL ALLOY 718 BAR - AMS 5662, AMS 5663

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.

Specific Gravity															
7.98 g/cm3															
Typical Applications								Related Specifications							
Land based gas turbine engines Jet Engines Fasteners Instrumentation parts Mandrels Well head completion equipment								AMS 5662 AMS 5663 UNS N07718 ASTM B637 W.Nr 2.4668 MSRR 7114 MSRR 7115 NACE MR0175							
Chemical Composition															
	Ni	Cr	Fe	Mo	Nb+Ta	C	Mn	Si	Ph	S	Ti	Cu	B	Al	Co
Min	50	17	Bal	2.8	4.75	–	–	–	–	–	0.65	–	–	0.20	–
Max	55	21	–	3.3	5.50	0.08	0.035	0.35	0.015	0.015	1.15	0.30	0.0006	0.80	1.00
Mechanical Properties in Solution Annealed and Aged Condition for Aerospace bar															
0.2% Proof Stress								Tensile Strength	Elongation	Reduction of area	Hardness				
MPA								MPA	%	%	HB				
Min								Min	Min	Min	Min				
1034								1275	12	15	331				
Mechanical Properties in Solution Annealed and Aged Condition for Oil patch bar															
0.2% Proof Stress								Tensile	Elongation	Reduction	Hardness				

	Strength		of area	
MPA	MPA	%	%	HRC
Min	Min	Min	Min	Min
827	1034	17	25	40

* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

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