

Inconel 718

UNS N07718

W.Nr. 2.4668

Nickel

Chromium

Iron

Niobium

<https://www.arialloy.com/inconel-718/>

• Chemical Composition •

C%	Mn%	Si%	P%	S%	Cr%	Co%	Mo%
≤ 0.08	≤ 0.35	≤ 0.35	≤ 0.015	≤ 0.015	17.0 ~ 21.0	≤ 1.00	2.80 ~ 3.30
Nb% + Ta%	Ti%	Al%	Fe%	Cu%	Ni%	B%	
4.75 ~ 5.50	0.65 ~ 1.15	0.20 ~ 0.80	Balance	≤ 0.30	50.0 ~ 55.0	≤ 0.006	

• Mechanical Properties •

Product	Condition	T.S.	Y.S.	EL	RA	Hardness
		MPa, min	MPa, min	%, min	%, min	HB
Seamless Tube	Solution	1069	655	30	...	...
Seamless Tube	Solution & Aged	1276	1034	12	...	...
Bar & Rod	Solution & Aged	1275	1034	12	15	≥ 331
Sheet, Strip & Plate	≤ 25.4mm Solution & Aged	1241	1034	12	...	...
Plate	25.4 ~ 57.2mm Solution & Aged	1241	1034	10	...	...

• Physical Properties •

Density		Melting Range		Curie Temperature			
lb/in ³	g/cm ³	°F	°C	Annealed, °F	Annealed, °C	Annealed & Aged, °F	Annealed & Aged, °C
0.296	8.19	2300 ~ 2437	1260 ~ 1336	< -320	-196	-170	-112

• Main Standards •

Rod, Bar, Wire & Forging Stock	Plate, Sheet & Strip	Pipe & Tube	Welding Products
ASTM B637/ASME SB 637 SAE AMS 5662/SAE AMS 5663 SAE AMS 5664/SAE AMS 5832 SAE AMS 5914/SAE AMS 5962	ASTM B670/ASME SB 670 ASTM B906/ASME SB 906 SAE AMS 5596/SAE AMS 5597 SAE AMS 5950	SAE AMS 5589 SAE AMS 5590	AWS 5.14/ ERNiFeCr-2