

Inconel 706

UNS N09706

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Nickel

Iron

Chromium

<https://www.arialloy.com/inconel-706/>

Chemical Composition

C%	Mn%	Si%	P%	S%	Cr%	Ni%
≤ 0.06	≤ 0.35	≤ 0.35	≤ 0.020	≤ 0.015	14.5 ~ 17.5	39.0 ~ 44.0
Nb%	Ti%	Ta%	Al%	B%	Cu%	Fe%
2.50 ~ 3.30	1.50 ~ 2.00	≤ 0.05	≤ 0.40	≤ 0.006	≤ 0.30	Balance

Mechanical Properties

Product	Condition	T.S.	Y.S.	EL	RA	Hardness
		MPa, min	MPa, min	%, min	%, min	HB
Bar & Rod	≤ 63.5mm Solution & Aged	1172	896	12	15	...
Bar & Rod	≥ 63.5mm Solution & Aged	1138	896	12	15	...
Plate, Sheet & Strip	≤ 4.76mm Solution Treated	896	552	30	...	...
Plate, Sheet & Strip	≥ 4.76mm Solution Treated	965	621	30	...	...
Plate, Sheet & Strip	≤ 4.76mm Aging Treated	1207	1000	12	...	...
Plate, Sheet & Strip	≥ 4.76mm Aging Treated	1172	965	12	...	...

Physical Properties

Density		Melting Range		Curie Temperature	
lb/in ³	g/cm ³	°F	°C	Annealed, °F	Annealed, °C
0.292	8.08	2434 ~ 2499	1334 ~ 1371	< -109	< -78

Main Standards

Bars, Forgings and Rings	Plate, Sheet & Strip
SAE AMS 5701 / SAE AMS 5702 SAE AMS 5703	SAE AMS 5605 SAE AMS 5606