

# Nickel alloy 718 spherical powder

Alloy 718 (UNS N07718 / 2.4668) is an age hardenable nickel-chrome-iron-molybdenum alloy.

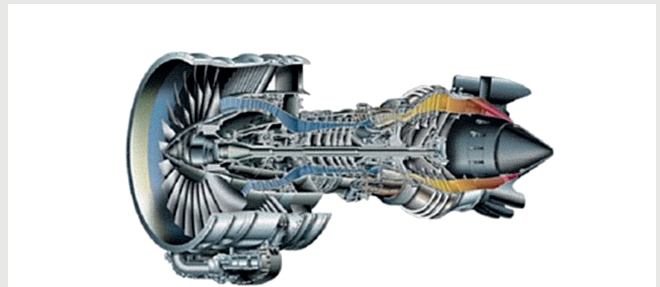
Alloy 718 can be easily machined in the solution-annealed condition. This alloy has got good mechanical short and long-term properties, and great fatigue strength in the age hardened condition.

It also exhibits good creep resistance up to 700 °C (1,300 °F) and good oxidation resistance up to approx. 1,000°C (1,830 °F).

Due to its properties Alloy 718 is widely used in a wide range of applications. Examples of these are components for liquid fueled rockets, rings, casings and various formed sheet metal parts for aircraft and land-based gas turbine engines.

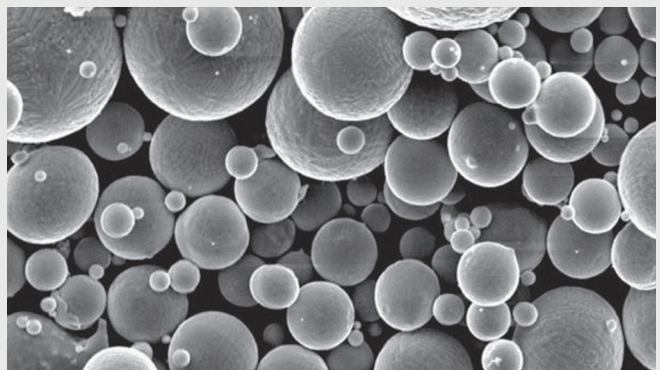
## CHEMICAL COMPOSITION

	MIN	MAX		MIN	MAX
C	-	0.08	Nb	4.75	5.50
Mn	-	0.35	Ti	0.65	1.15
Si	-	0.35	Al	0.20	0.80
P	-	0.015	Fe	Balance	Balance
Cr	17.00	21.00	O	-	0.02
Co	-	1.00	Cu	-	0.30
Mo	2.80	3.30	Ni	50.00	55.00



## PHYSICAL PROPERTIES

Particle Size Range	0 - 53 µm	53 - 105 µm
Morphology	Spherical	Spherical
Particle size distribution	D10: 15µm	D10: 55µm
	D50: 35µm	D50: 70µm
	D90: 58µm	D90: 102µm
Powder sphericity	Φ≥0.85	
Angle of repose	≤40°	
Apparent density	4.2 g/cm <sup>3</sup>	4.5 g/cm <sup>3</sup>



Standards satisfied: ASTM F3055, ASTM F3049

Particle size distribution. Laser diffraction.

