

Nickel alloy 625 spherical powder

Alloy 625 (UNS N06625 / 2.4856) is used for its high strength and outstanding corrosion resistance. The combination of its alloying elements is also responsible for superior resistance to a wide range of corrosive environments as well as to high-temperature effects such as oxidation and carburization.

It is used for propeller blades, aircraft ducting systems, engine exhaust systems, resistance welded honeycomb structures, spray bars, bellows, turbine shroud rings, and heat-exchanger tubing in environmental control systems.

Material in soft annealed condition has got exceptional resistance to pitting, crevice corrosion, erosion and intergranular corrosion. It is immune to chloride-induced stress corrosion cracking and has got good resistance to mineral acids such as nitric, phosphoric, sulfuric and hydrochloric acid. Service temperatures range from cryogenic to 1800°F (982°C).

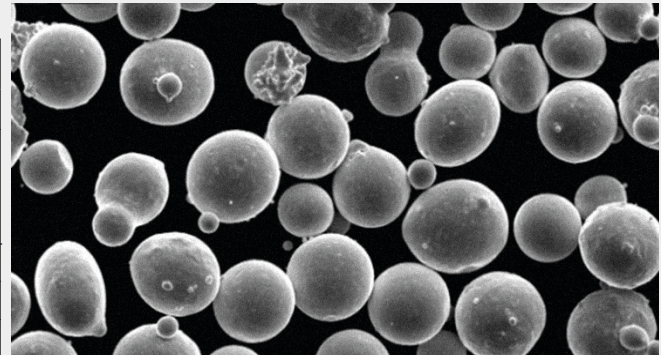
CHEMICAL COMPOSITION

	MIN	MAX		MIN	MAX
C	-	0.1	Nb	3.14	4.15
Mn	-	0.5	Ti	-	0.40
Si	-	0.5	Al	-	0.40
P	-	0.015	Fe	-	5.00
Cr	20.00	23.00	Cu	-	0.07
Co	-	1.00	Other elements	-	-
Mo	8	10	Ni	Balance	Balance



PHYSICAL PROPERTIES

Particle Size Range	0 - 53 μm	53 - 105 μm
Morphology	Spherical	Spherical
Particle size distribution	D10: 15μm	D10: 53μm
	D50: 33μm	D50: 75μm
	D90: 59μm	D90: 105μm
Powder sphericity	Φ≥0.85	
Angle of repose	≤40°	
Apparent density	4.4 g/cm ³	4.6 g/cm ³



Standards satisfied: ASTM F3055, ASTM F3049

Particle size distribution. Laser diffraction.

