

## Nickel Based Powders

Process			Alloy	Chemical Composition (wt%)					UNS	ASTM	AMS	DIN	Similar Grades	
Selective Laser Melting	Electron Beam Melting	Laser Metal Deposition		Element	Min	Max	Element	Min						Max
✓		✓	Ni713LC	Al	5.5	6.5	Nb	1.5	2.5				IN713LC	
				B	0.005	0.015	Ni	Bal	Bal					
				C	0.03	0.07	P		0.015					
				Co		1.0	S		0.015					
				Cr	11.0	12.0	Si		0.5					
				Cu		0.5	Ta		0.015					
				Fe		0.5	Ti	0.5	0.9					
				Mn		0.25	Zr	0.05	0.15					
				Mo	3.8	5.2								
✓	✓	✓	Ni718	Al	0.30	0.70	Mn		0.35	7718	B670 F3055	5832/ 5596	2.4668	IN718
				B		0.006	Mo	2.80	3.30					
				C	0.02	0.08	Nb+Ta	4.75	5.50					
				Ca		0.01	Ni	50.0	55.0					
				Co		1.0	P		0.015					
				Cr	17.0	21.0	S		0.015					
				Cu		0.30	Se		0.005					
				Fe	15.0	21.0	Si		0.35					
				Mg		0.01	Ti		1.15					
✓		✓	Ni738LC	Al	3.2	3.7	Mo	1.5	2.0				IN738LC	
				Al+Ti	6.5	7.2	Nb	0.6	1.1					
				B	0.007	0.012	Ni	Bal	Bal					
				C	0.09	0.13	P		0.015					
				Co	8.0	9.0	S		0.3					
				Cr	15.7	16.3	Ta	1.5	2.0					
				Cu		0.1	Ti	3.2	3.7					
				Fe		0.35	W	2.4	2.8					
				Mg		0.01	Zr	0.020	0.050					
				Mn		0.2								