

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
✓		✓	Ni939	Al	1.4	2.4z	Ni	Bal	Bal				IN939	
				B		0.01	Ta	0.9	1.9					
				C	0.10	0.20	Ti	3.2	4.2					
				Co	18.5	19.5	W	1.3	2.1					
				Cr	21.50	23.25	Zr		0.1					
				Nb		1.0								
✓		✓	NiH230	Al	0.20	0.50	Mo	1.0	3.0	NO6230		5878	2.4733	H-230
				C	0.05	0.15	P		0.03					
				Co		5.00	S		0.015					
				Cr	20	24	Si	0.25	0.75					
				Fe		3.00	Ni	Bal	Bal					
				La	0.005	0.05	W	13	15					
				Mn	0.30	1.00								
✓		✓	NiWASP	Al	1.20	1.60	Mo	3.50	5.00	7001	B637	5544/ 5828	2.4654	Wasp
				B	0.003	0.010	Ni	Bal	Bal					
				C	0.02	0.10	P		0.010					
				Co	12.00	15.00	S		0.010					
				Cr	18.00	21.00	Si		0.10					
				Fe		2.00	Ti	2.75	3.50					
				Mn		0.10								
✓		✓	4AST-X XLC	B		0.010	Nb		0.25	6002	B435	5798	2.4665	Hast-X
				C	0.05	0.08	Ni	Bal	Bal					
				Co	1.5	2.5	P		0.015					
				Cr	20.5	23.0	S		0.015					
				Cu		0.2	Si		1.0					
				Fe	17.0	20.0	V		0.25					
				Hf		0.25	W	0.60	1.0					
Mo	8.0	10.0												