

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
✓		✓	Ni247LC	Al	5.4	5.8	Ni	Bal	Bal				CM0247LC	
				B	0.0010	0.018	P		0.015					
				C	0.04	0.08	S		0.003					
				Co	8.50	9.50	Si		0.05					
				Cr	7.50	8.50	Ta	3.0	3.5					
				Fe		0.05	Ti		0.90					
				Hf	1.20	1.60	W	9.5	10.5					
				Mg		0.008	Zr	0.006	0.015					
				Mo	0.40	0.60								
✓		✓	Ni263	Al	0.30	0.60	Mo	5.60	6.10	7263		5872	2.4650	C-263
				B		0.005	Ni	Bal	Bal					
				C	0.04	0.08	P		0.015					
				Co	19.00	21.00	S		0.007					
				Cr	19.00	21.00	Si		0.40					
				Cu		0.20	Ti	1.90	2.40					
				Fe		0.7	Ti+Al	2.40	2.80					
				Mn		0.60								
✓		✓	Ni276	B		0.006	Ni	Bal	Bal	N10276		5837	C-276	
				C		0.02	P		0.030					
				Co		2.50	S		0.030					
				Cr	14.50	16.50	Si		0.08					
				Fe	4.00	7.00	V		0.35					
				Mn		1	W	3.5	4.5					
				Mo	15.00	17.00								
✓		✓	Ni625	Al		0.40	Nb	3.15	4.15	6625	B443 F3056	5599/ 5666	2.4856	IN625
				C		0.10	Ni	Bal	Bal					
				Co		1.0	P		0.015					
				Cr	20.0	23.0	S		0.015					
				Cu		0.50	Si		0.50					
				Fe		5.0	Ta		0.05					
				Mo	8.0	10.0	Ti		0.40					
				Mn		0.50								