



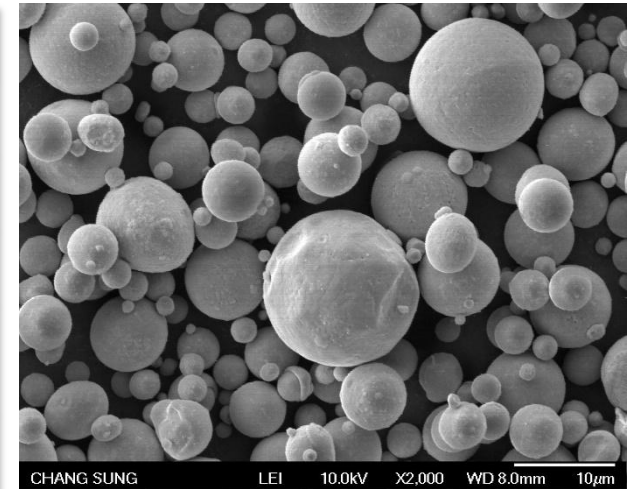
MIM Powder Characteristics

SUS316L Powder

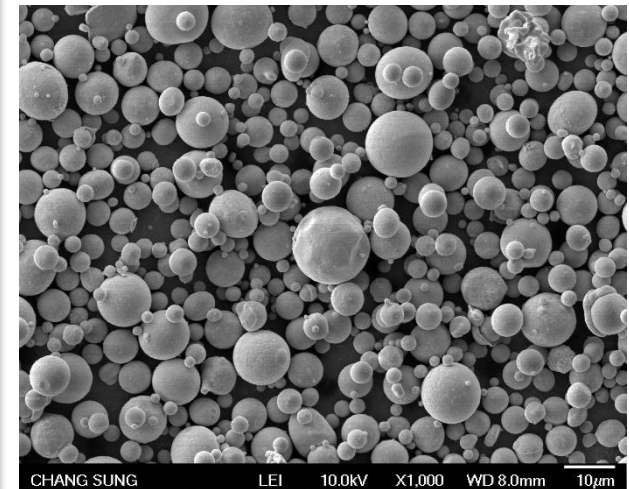
Gas Atomization

Chemical Composition (Mass%)		
	Spec.	Results
Fe	Bal.	bal.
Cr	16.0~18.0	16.1
Ni	10.0~14.0	10.5
Si	Max. 1.0	0.32
Mn	Max. 2.0	1.22
C	Max. 0.03	0.02
Mo	2.0~3.0	2.00
N	-	0.089
O	-	0.087

Physical Properties		
Apparent Density(g/cc)		4.22
Tap Density(g/cc)		4.76
Flow Rate(50g/sec)		None
Particle Size Distribution (μm)	Accumulative 10% dia.	5.2
	Accumulative 50% dia.	9.0
	Accumulative 90% dia.	14.3
	Accumulative 95% dia.	17.1
	Accumulative 100% dia.	37.0
Particle Size Distribution (Mass%)	+30 μm	0.35
	30~20 μm	3.15
	20~10 μm	96.5
	-10 μm	



×2,000



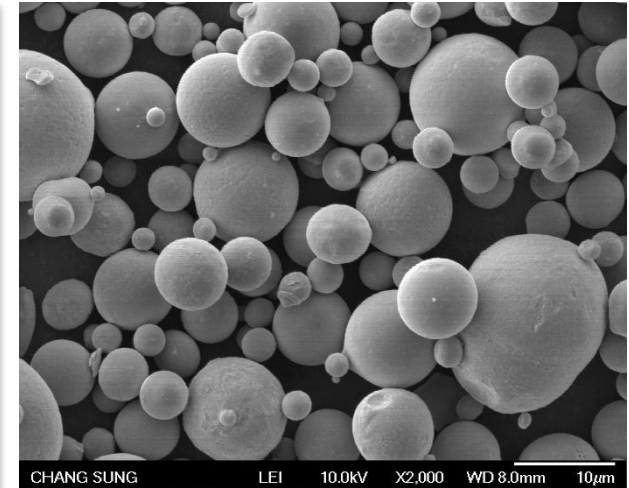
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17-4PH Powder

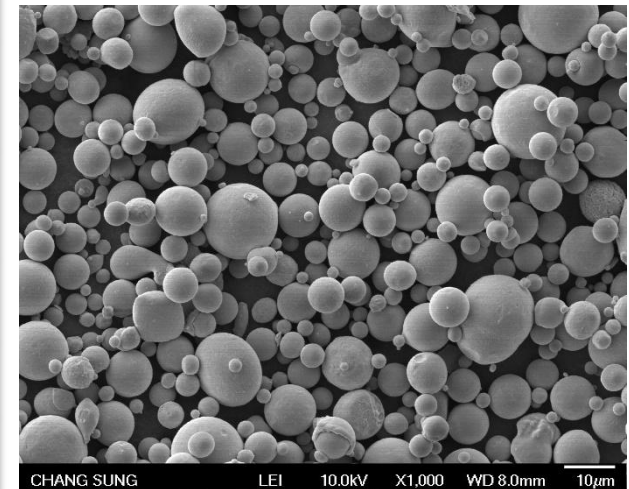
Gas Atomization

Chemical Composition (Mass%)		
	Spec.	Results
Fe	Bal.	Bal.
Cr	15.0~17.5	15.5
Ni	3.0~5.0	4.34
Cu	3.0~5.0	3.46
Nb	0.15~0.45	0.19
Si	Max. 1.0	0.31
Mn	Max. 1.0	0.35
C	Max. 0.07	0.03
N	-	0.032
O	-	0.091

Physical Properties		
Apparent Density(g/cc)		3.96
Tap Density(g/cc)		4.41
Flow Rate(50g/sec)		None
Particle Size Distribution (μm)	Accumulative 10% dia.	5.7
	Accumulative 50% dia.	11.0
	Accumulative 90% dia.	18.6
	Accumulative 95% dia.	22.1
	Accumulative 100% dia.	44.0
Particle Size Distribution (Mass%)	+30 μm	1.69
	30~20 μm	8.31
	20~10 μm	90.0
	-10 μm	



×2,000



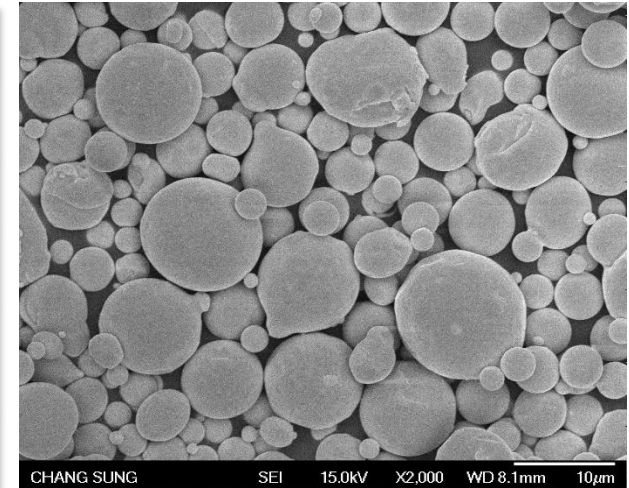
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HK-30 Powder

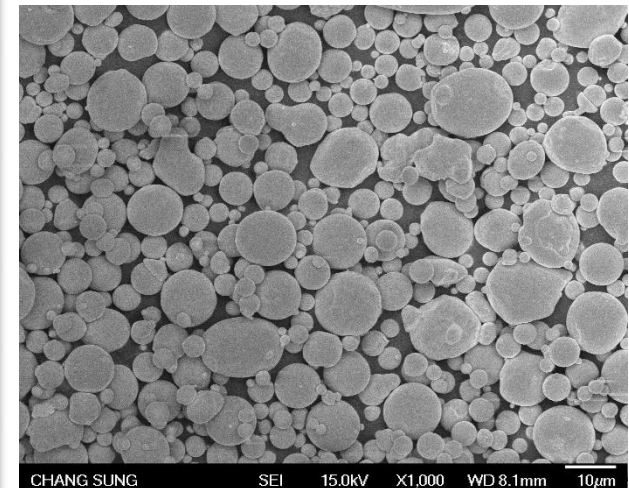
Gas Atomization

Chemical Composition (Mass%)		
	Spec.	Results
Fe	Bal.	bal.
Cr	23.0~27.0	25.8
Ni	19.0~22.0	21.2
Si	0.75~1.75	1.13
Nb	1.20~1.50	1.42
C	0.25~0.35	0.32
Mn	Max. 1.50	1.21
P	Max. 0.04	0.009
S	Max. 0.04	0.006
Mo	Max. 0.05	None
N	-	0.093
O	-	0.079

Physical Properties		
Apparent Density(g/cc)		3.28
Tap Density(g/cc)		4.65
Flow Rate(50g/sec)		None
Particle Size Distribution (μm)	Accumulative 10% dia.	6.3
	Accumulative 50% dia.	10.0
	Accumulative 90% dia.	15.0
	Accumulative 95% dia.	17.1
	Accumulative 100% dia.	31.1
Particle Size Distribution (Mass%)	+30 μm	0.13
	30~20 μm	1.17
	20~10 μm	98.7
	-10 μm	



×2,000



×1,000