



## PRODUCT CHARACTERISTICS

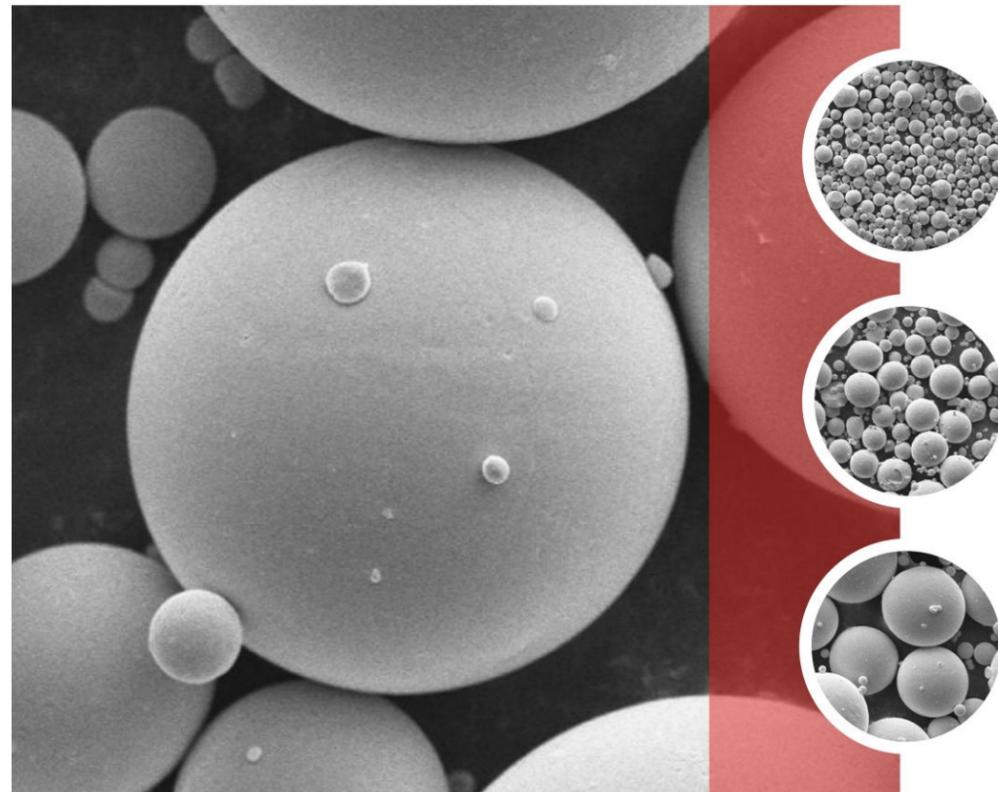
- Market-oriented and actively developing and improving our production technology
- Minimizing the cost of powdered raw materials
- Promoting the industrialization of 3D printing technology

Spherical shape particles

Good flowability

Particle size distribution tailored to the application and properties

Controlled chemical composition and low gas content



CNPC POWDER

## 3D PRINTING POWDERS

CNPC POWDER has been working constantly and continuously to develop a new line of metal powders tailored for the 3D printing industry. All of our powders meet the high quality standards required for additive manufacturing & 3D printing.

Iron based powders	Composition (%)	O (%)	A.D.g/cm <sup>3</sup>	Particle Size
CNPC-SS304L	Cr18-20, Ni8-12, C 0.03	0.05	3.5-5.0	0-15um, 15-45um,45-106um, D50 1-2um
CNPC-SS316L	Cr16-18, Ni10-14, Mo2-3,C 0.03			0-15um, 15-45um,45-106um, D50 1-2um
CNPC-SS17-4PH	Cr15.5-17.5, Ni3-5,Cu3-5,Nb0.15-0.45?			0-15um, 15-45um,45-106um, D50 1-2um
CNPC-18Ni300	Ni18-19, Mo 4.6-5.2, Co8.5-9.5, Ti 0.5-0.8			0-15um, 15-45um,45-106um
CNPC-H13	Cr 4.7-5.5, Mo 1.1-1.7, V 0.8-1.2 Si 0.8-1.2			0-15um, 15-45um,45-106um
CNPC-M2	Cr 3.8-4.4, Mo 4.5-5.5, W5.5-6.7, V 1.7-2.2			0-15um, 15-45um,45-106um

Aluminum based powders	Composition (%)	O (%)	A.D.g/cm <sup>3</sup>	Particle Size
CNPC-AISi10Mg	Si 9-11,Mg 0.3-0.5, Al Bal.	0.1	0.8 - 1.2	0-15um, 15-45um, 20-60um, 45-106um
CNPC-AISi7Mg	Si 6-8,Mg 0.3-0.5, Al Bal.			0-15um, 15-45um, 20-60um, 45-106um
CNPC-AISi12	Si 11-13, Al Bal.			0-15um, 15-45um, 20-60um, 45-106um

Nickel based powders	Composition (%)	O (%)	A.D.g/cm <sup>3</sup>	Particle Size
CNPC-Inconel 718	Ni50-55,Cr17-21,Mo2.8-3.3,Nb+Ta4.75-5.5,	0.05	4.0-5.0	0-15um, 15-45um,45-106um
CNPC-Inconel 625	Cr20-23, Mo8-10			0-15um, 15-45um,45-106um
CNPC-Hastelloy X	Cr20.5-23, Mo8-10, Fe17-20			0-15um, 15-45um,45-106um
CNPC-Hastelloy C	Cr15-16.5, Mo15-17, Fe40,W3-4.5,Co1.5-2.5			0-15um, 15-45um,45-106um
CNPC-Invar36	Ni35-37,Fe Bal			0-15um, 15-45um,45-106um
CNPC-Kovar	Ni28.5-29.5, Co16.8-17.8, Fe BalCu3-5,			0-15um, 15-45um,45-106um

Cobalt based powders	Composition (%)	O (%)	A.D.g/cm <sup>3</sup>	Particle Size
CNPC-CoCrMo	Cr26-30, Mo4-6, W4-6, Co Bal	0.05	4.0-5.5	0-15um, 15-45um,45-106um
CNPC-CoCrW	Cr26-29, W7-9, Si1.2-1.9, Co Bal			0-15um, 15-45um,45-106um

Titanium based Powders	Composition (%)	O (%)	A.D.g/cm <sup>3</sup>	Particle Size
CNPC-TC4	Al5.5-6.5, V3.5-4.5, Ti Bal	1-1.5	0.5 - 1.0	0-15um, 15-45um,45-106um
CNPC-CPTI	Ti			0-15um, 15-45um,45-106um

Other Powders	Composition (%)	O (%)	A.D.g/cm <sup>3</sup>	Particle Size
CNPC-Sn	Sn 99.95	0.02-0.03	3.5-4.5	0-15um, 15-45um,45-106um
CNPC-Cu	Cu 99.5	0.1	4.4-5.5	0-15um, 15-45um,45-106um, D50 1-2um
CNPC-Ni	Ni 99.8	0.05-0.1	4.4-5.5	0-15um, 15-45um,45-106um, D50 1-2um
CNPC-SWC	WC 99.9	0.1	5.2-6.5	15-45um,45-106um,106-300um
CNPC-GCUSN10	CU90SN10	0.1	4.8-5.2	0-15um, 15-45um,45-106um
CNPC-Zn	Zn 99.5	0.05-0.1	3.0-3.8	0-15um, 15-45um,45-106um
CNPC-Ag	Ag 99.9	0.2-0.3	5.0-6.5	D50 2-4um D50 1-2um D50 0.5-1um