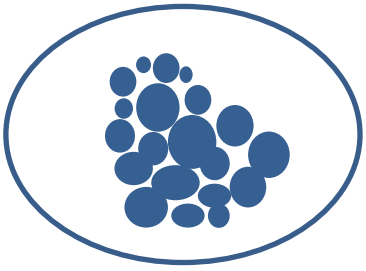
HIGH PURITY SPHERICAL POWDER

- Particle Size Conversion Table ..... I-V 03
- 3D Printing Spherical Powders ..... I-V 04
- Thermal Spraying Powders ..... I-V 06



High Purity Spherical powder

PURITY

Purity is based on spectrographic values of trace metals found, i. e. 99.999% pure indicates that 0.001% (10 ppm) total of trace metals have been observed. Gases, Carbon and Sulfur are not included in the analysis but can possibly be determined if needed.

PARTICLE SIZE

Particle sizes are listed as determined with sieves. “-100,+325 mesh” means that all of the particles pass through a 100 mesh screen and are completely retained on a 325 mesh screen. “Mesh” indicates the number of sieve openings per linear inch.

CERTIFICATE

Each batch of material is shipped with a certificate of analysis and represents the current batch only.

Material Safety Data Sheet (MSDS) will be attached if the materials are dangerous.



CUSTOM MANUFACTURING

Funcmater provide custom service if there is no dimensions or purity you want on the list, Don’t hesitate to contact us.

Particle Size Conversion Table

MESH SIZE	APPROXIMATE DIAMETER(mm)	MESH SIZE	APPROXIMATE DIAMETER(mm)
2	8	80	0.180
3	6.7	100	0.150
4	4.75	120	0.125
5	4.00	140	0.106
6	3.35	170	0.090
7	2.80	200	0.075
8	2.36	230	0.063
10	2.00	270	0.053
12	1.70	325	0.045
14	1.40	400	0.040
16	1.18	500	0.025
18	1.00	600	0.023
20	0.850	800	0.018
25	0.710	1000	0.013
30	0.600	1250	0.010
35	0.500	2000	0.0065
40	0.425	2500	0.0050
45	0.355	5000	0.0026
50	0.300	8000	0.0016
60	0.250	10000	0.0013
70	0.212		

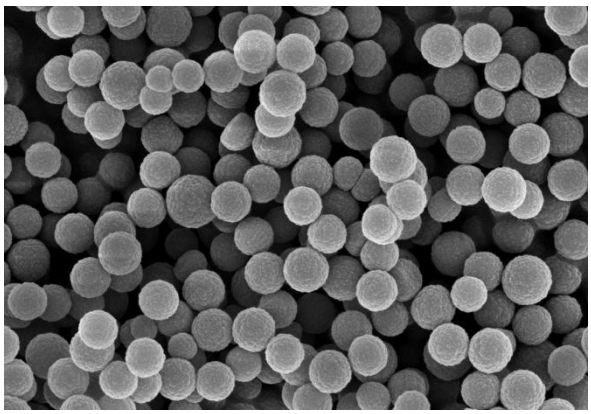
FUNCMATER Website: www.funcmater.com Email: sales@funcmater.com

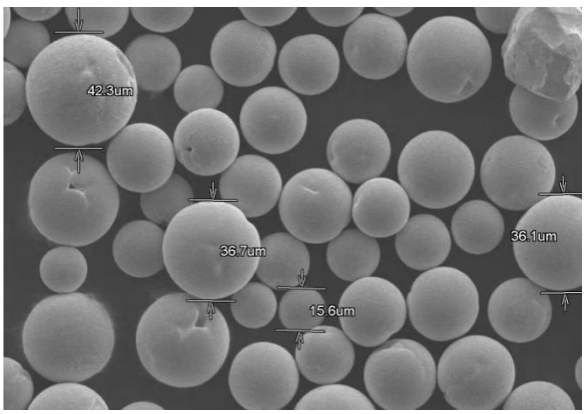
3D Printing Spherical Powder

The spherical powder for 3D printing offered by FUNCMATER has high purity, high sphericity, low oxygen content, good fluidity, etc.

CHEMICAL NAME	FORMULA	PURITY	PARTICLE SIZE
Titanium Spherical powder	Ti	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
GR5 Titanium Alloy Spherical powder	Ti-6Al-4V	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
GR5(high tenacity) Titanium Alloy Spherical powder	Ti-6Al-4V	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
Titanium Alloy Spherical powder	Ti-6.5Al-3.5Mo-1.5Zr-0.3Si	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
A-1(GR6) Titanium Alloy Spherical powder	Ti-5Al-2.5Sn	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
A-4(Ti-811) Titanium Alloy Spherical powder	Ti-8Al-1Mo-1V	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
Titanium Alloy Spherical powder	Ti-6.5Al-1Mo-1V-2Zr	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
Titanium Aluminum Alloy Spherical powder	Ti47Al2Cr2Nb	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
High Niobium Titanium Aluminum Alloy Spherical powder	TiAlNb	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
HastelloyC276 High temperature alloy Spherical Powder	Ni-Mo-Cr-Fe-W	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
Hastelloy Alloy X Spherical Powder	Ni-Mo-Cr-Fe	99.9%/99.99 %	10-45μm/15-53μm/45-105μm
Hastelloy188 Cobalt-based High temperature alloy Spherical Powder	Co-Ni-Cr-W	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
Inconel 625 Alloy Spherical Powder	0Cr20Ni65Mo10Nb4	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
Inconel718 Alloy Spherical powder	Ni-Cr-Fe-Nb-Mo	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
A14130 Aluminium Alloy Spherical powder	AlSi12	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
AlSi9Cu3 Aluminium Alloy Spherical powder	AlSi9Cu3	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
AlMg4.5Mn0.4 Aluminium Alloy Spherical powder	AlMg4.5Mn0.4	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
A03560 Aluminium Silicon Magnesium Alloy spherical powder	AlSi7Mg	99.9%-99.99 %	10-45μm/15-53μm/45-105μm
A03600 Aluminium Silicon Magnesium Alloy spherical powder	AlSi10Mg	99.95%-99.99 %	0-25μm/15-53μm/45-105μm /75-150μm
2024 Aluminium Base Spherical powder（GB/T 3190-2008）	AlCuMnMgCrZn	99.9%-99.99 %	0-25μm/15-53μm/45-105μm /75-150μm
7075 Aluminium Base Spherical powder（GB/T 3190-2008）	AlZnMgCu1.5	99.9%-99.99 %	0-25μm/15-53μm/45-105μm /75-150μm
17-4PH Stainless steel Spherical powder	Fe-Cr17Ni4Cu4Nb	99.9%-99.99 %	45-105μm/53-150μm
17-7PH Stainless steel Spherical powder	Fe-Base	99.9%-99.99 %	45-105μm/53-150μm
304L Stainless steel Spherical powder	Fe-Cr19Ni10	99.9%-99.99 %	45-105μm/53-150μm
316L Stainless steel Spherical powder	Fe-Cr17Ni14Mo2	99.9%-99.99 %	45-105μm/53-150μm
410 Stainless steel Spherical powder	Fe-Cr13	99.9%-99.99 %	45-105μm/53-150μm
18Ni300 Die steel Spherical powder	Fe-Base	99.9%-99.99 %	45-105μm/53-150μm

Vms-12Cr9Ni Die steel Spherical powder	Fe-Base	99.9%-99.99 %	45-105μm/53-150μm
H13 Die steel Spherical powder	Fe-4Cr5MoSiV	99.9%-99.99 %	45-105μm/53-150μm
420 Die steel Spherical powder	Fe-Base	99.9%-99.99 %	45-105μm/53-150μm
S590 Spherical high speed steel powder	CoCrMoVW	99.9%-99.99 %	45-105μm/53-150μm
A30 Spherical high speed steel powder	CoCrMoVW	99.9%-99.99 %	45-105μm/53-150μm
S390 Spherical high speed steel powder	CoCrMoVWMn	99.9%-99.99 %	45-105μm/53-150μm
Stellite21 Cobalt-base Alloy Spherical powder	Co-Cr-Mo	99.9%-99.99 %	45-105μm/53-150μm
Stellite6 Cobalt-base Alloy Spherical powder	Co-Cr-W	99.9%-99.99 %	45-105μm/53-150μm
Stellite12Cobalt-base Alloy Spherical powder	Co-Cr-W-Fe	99.9%-99.99 %	45-105μm/53-150μm
Cobalt Chromium Tungsten Alloy Spherical powder	CoCrW	99.9%-99.99 %	0-25μm/15-53μm /45-105μm/75-150μm
Cobalt Chromium Molybdenum Alloy Spherical powder	CoCrMo	99.9%-99.99 %	15-300μm
Cobalt Chromium Molybdenum Tungsten Alloy Spherical powder	CoCrMoW	99.9%-99.99 %	15-300μm
6J11 Copper Base alloy Spherical powder	Cu-Base	99.9%-99.99 %	150-325μm
Copper Iron Alloy Spherical powder	CuFe	99.9%	150-325μm
Copper Chromium Alloy Spherical powder	CuCr	99.9%	150-325μm
Copper Chromium Zirconium Alloy Spherical powder	CuCrZr	99.5 %-99.9 %	150-325μm
e.g.FeCoNiCrMn	FeCoNiCrMn	99.9%-99.99 %	10-45μm/15-53μm45-105μm
Nickel Aluminum Alloy Spherical Powder	NiAl	99.9%-99.99 %	10-45μm/15-53μm45-105μm
NiTi50 Alloy Spherical powder	NiTi50		10-45μm/15-53μm45-105μm
Nb521 Spherical powder	Nb521		10-45μm/15-53μm45-105μm





Thermal Spraying Powder

Thermal spray technology enables the formation of protective or functional surface coatings on substrate materials or workpieces, which have a wide range of important applications in many industrial fields worldwide.

Thermal Spray Processes

- Plasma spray
- Flame spray
- High velocity oxy-fuel coating spray (HVOF)
- Electric arc spray
- Cold spray

CHEMICAL NAME	FORMULA	PARTICLE SIZE
Crystalline Tungsten Powder	W	
Macrocry Stalline Tungsten Carbide Powder	WC	0.84mm-0.038mm
Chromium Carbide Powder	CrC	-60-325mesh
Cast Tungsten Carbide Powder	WC	5.0mm-0.038mm
Spherical Cast Tungsten Carbide Powder	WC	2.5mm-0.010mm
Cemented Carbide Spray Powder	WC-Co	0.85mm-0.005mm
Atomized nickel Powder	Ni	-200mesh
Aluminum Silicon Alloy Powder	Al12Si	-120+325mesh
Stainless steel Powder	304L	+100Mesh-325Mesh
	316L	+100Mesh-326Mesh
	317L	+100Mesh-327Mesh
	410L	+100Mesh-328Mesh
	430L	+100Mesh-329Mesh
	434L	+100Mesh-330Mesh

Nickel-Base Self-fluxing alloy Powder	Ni5Cr1B2Si5Fe	-140+325mesh
	Ni7Cr1.5B2.8Si5Fe	-140+325mesh
	Ni9Cr2B3Si5Fe	-140+325mesh
	Ni3Cr2.5B3Si1OFe	-140+325mesh
	Ni15Cr3B3Si10Fe	-140+325mesh
	Ni17Cr3.5B4Si3Fe	-140+325mesh
	Ni17Cr3.5B4Si2Fe	-140+325mesh
	Ni17Cr3.5B4Si10Fe	-140+325mesh/-45+151 μ m
	Ni22Al1.5W	-325mesh
	Ni21Cr3W15Mo2Fe2Co	-140+325mesh
	Ni6Co6Cr1Ti3Mo4Al30W3Fe	-140+325mesh
Nickel Chromium Aluminum Yttrium Alloy Powder	Ni22Cr11AlY	-270+400Mesh
	Co32Ni21Cr8Al0.5Y	-270+400Mesh
	CoCrAlYTaSi	-270+400Mesh
Copper-Base Spraying Powder	Cu10Al	-140+325Mesh
	Cu36Ni5In	-140+325Mesh
Cobalt-Base Spraying Powder	Co8Cr28Mo2.6Si	-140+325mesh
	CoCrW	-140+325mesh
	Co31.5Cr12.5W2.5C3Ni1.4Si	-140+325mesh
	Co30Cr8W1.6C3Ni1.4Si	-140+325mesh
	Co30Cr4.5W1C3Ni1.4Si	-60+160mesh
	Co28Cr0.25C3Ni1Si5	-140+325mesh
	Co25.5Cr7.5W0.5C10.5Ni1Si	-140+325mesh
	Co21Cr5W0.1C1Ni1.6Si2.4B	-140+325mesh
Iron-based Spraying Powder	Fe15Cr1B1Si	-140+325mesh
	Fe17Cr12B1Si2.4Mo0.1Mn	-140+325mesh
	Fe17Cr20Ni4Mo1Mn	-140+325mesh
	Fe13Cr1.6B1.2Si0.8Mo	-140+325mesh
	Fe5C1Si1.8B43Cr	-140+325mesh
	Fe21Cr1.5B3.5Si10Ni2Mo0.8Mn0.5V	-140+325mesh
	Fe21Cr1.7B3.5Si10Ni2Mo0.8Mn0.7V	-140+325mesh
	Fe87Cr13	-140+325mesh
	Fe6Ni2W13Cr2.5Mo2.5	-140+325mesh
	Fe5Mn5Si10Ni13Cr	-140+325mesh
	Fe13Mn2Si6Ni13Cr	-140+325mesh
Ceramics Spraying Powder	Y2O3+Zr2O3	-200+325mesh
	Al2O3	-200+400mesh
	40TiO2 60Al2O3	-40+20 μ m
	Cr2O3	-40+20 μ m
	TiO2	-40+20 μ m

Composite Spraying Powder	Ni20Al	-200+400mesh
	Ni5Al	-140+325mesh
	Ni22MoS2	-140+325mesh
	Ni25Cg	-140+325mesh
	Ni50Cg	-140+325mesh
	Ni23Al2O3	-140+325mesh
	WC12Ni	-140+325mesh
	WC12Co	-325+500Mesh
	WC17Co	-325+500Mesh
	WC25Co	-325+500Mesh
	WC10Co4Cr	-325+500Mesh
	20NiCr80Cr3C2	-325+500Mesh
	25NiCr75Cr3C2	-325+500Mesh
	30NiCr70Cr3C2	-325+500Mesh
	Fe28W4Al9Cr5Ni2C	-140+325mesh
	NiCr5Al	-140+325mesh
	NiCoCrAlY	-140+325mesh
Silver-Base Alloy Powder	Ag18Cu	-120+325mesh
	Ag	-120+325mesh

