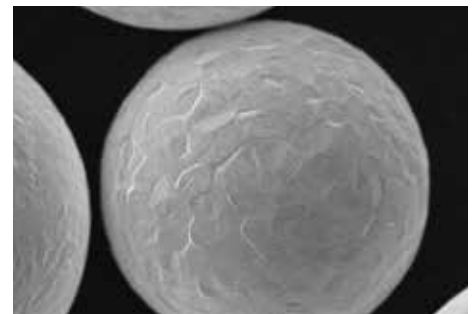
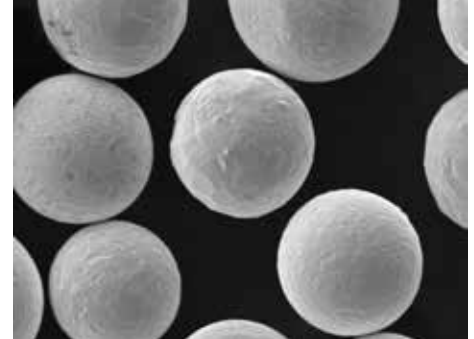


HIGH PERFORMANCE PARTS START WITH HIGH PERFORMANCE POWDER

From 6K's UniMelt® process, the world's only microwave plasma production system comes the highest performing and most versatile set of powders. 6K's spherical tungsten powders deliver excellent material properties that enable designers to take advantage of the design freedom of additive manufacturing. Tungsten has the highest melting point of all the elements combined with its high density and tensile strength makes this material a great choice for nuclear and aerospace applications. 6K Additive has tungsten powder readily available at many different PSDs to be used across a wide variety of applications.

Tungsten is available in a variety of sizes, the representative properties are shown below for a fine cut.



NOMINAL CHEMISTRY	
Tungsten	99.9 m.b. (Min)
Chromium	0.1 (Max)
Iron	0.1 (Max)
Nickel	0.1 (Max)
Oxygen	250ppm (Max)

POWDER SIZE		
L-PBF	+45µm	5 wt% (Max)
	-15µm	10 vol% (Max)
EB-PBF	+106µm	10 wt% (Max)
	-45µm	10 wt% (Max)

PHYSICAL PROPERTIES (TYPICAL)	POWDER SIZE		
	5-25µm	15-45µm	45-90µm
Apparent Density	10.0 g/cm ³	10.55 g/cm ³	10.60 g/cm ³
Tap Density	11.5 g/cm ³	11.70 g/cm ³	11.30 g/cm ³
Hall Flow	14 s/50g	6 s/50g	7 s/50g
Sphericity	.98	.98	.98

6K Premium Tungsten Powders

- Ultra clean
- No satellites
- High sphericity
- Free flowing
- High apparent density
- Low porosity
- Exceptional lot to lot consistency



HIGH DENSITY POWDER

Unlike competitive technologies, 6K's process delivers highly dense, highly spherical powders without satellites, as shown in microCT of the particle.



DERIVED FROM SUSTAINABLE SOURCES

At 6K our powders are produced from sustainable sources including used powders and machine turnings. We leverage these input streams as feedstock for the UniMelt process, essentially turning scrap into high value AM powder. This process enables your organization to get value back from your past powder investment by participating in 6K Additive's powder buy-back program. We will buy your used powder, provide you a credit towards new premium powder for a wide variety of applications.



HIGH UNIMELT YIELD AND TUNABLE PSD

6K's UniMelt process can deliver the highest yield in the industry for your target PSD. With our unique microwave plasma technology our production run can be tailored for any additive manufacturing (AM) platform including powder bed fusion, EBM, Binder Jet, direct energy deposition and cold spray plus PM processes like MIM and HIP.

With 6K's UniMelt breakthrough technology we have the capability of producing almost limitless material combinations, allowing you to design with infinite possibilities for your application.

Key Properties

- High heat resistance
- High tensile strength
- High density
- Exceptional electrical conductivity

Industries

- Aerospace & Defense
- Medical
- Nuclear
- Industrial
- Power

6K Additive's production team has extensive experience in powder production, alloys and metal reclamation. Our 80,000 sq. ft. facility is ISO9001 certified and AS9100 certification is in process.

6K CORPORATE HEADQUARTERS

25 Commerce Way, N. Andover, MA 01845
978 258 1645

6K ADDITIVE, GLOBAL MANUFACTURING CENTER

541 Steubenville Pike, Burgettstown, PA 15021
724 215 7049