

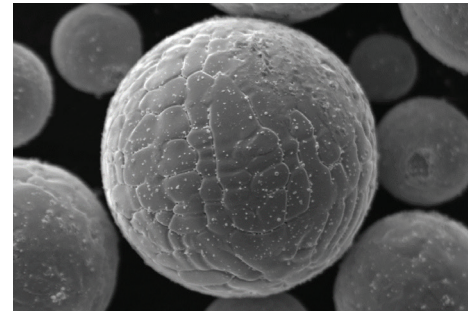
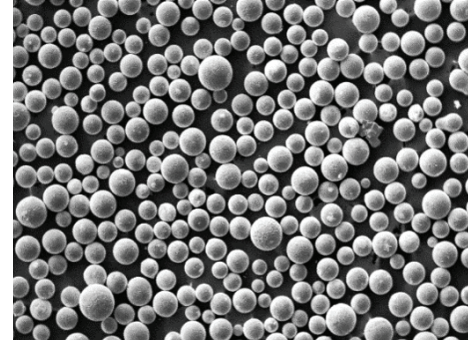
C18150

Copper Alloy Powder

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. C18150 copper alloy is used in applications that require high electrical or thermal conductivity with wear resistance and higher strength than pure copper. C18150 can be used for many electrical and power transmission applications that require high electrical or thermal conductivity. 6K Additive's C18150 copper spherical powders deliver excellent material properties that enable designers to take advantage of the design freedom of additive manufacturing.

This alloy is used in aerospace and general industry and tooling applications that require excellent thermal or electrical conductivity, including conformal induction coils. C18150 is available in a variety of sizes, the representative properties are shown below for a fine cut.



NOMINAL CHEMISTRY

Copper	Balance
Chromium	0.5 - 1.5%
Zirconium	0.02 - 0.3%
Nitrogen	0.002% (Max)
Oxygen	0.1% (Max)
Iron	0.08% (Max)

PHYSICAL PROPERTIES (Typical) 15-45 µm

Apparent Density	4.6 g/cm ³
Tap Density	5.3 g/cm ³
Hall Flow	20 s/50g
Sphericity	0.98

6K Additive Premium Copper Powders

- Ultra Clean
- No Satellites
- High Sphericity
- Free Flowing
- High Apparent Density
- Low Porosity
- Exceptional Lot to Lot Consistency

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HIGH DENSITY POWDER

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



DERIVED FROM SUSTAINABLE SOURCES

At 6K Additive, 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.



C18150 Copper Alloy

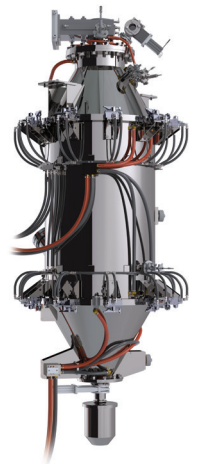
Produced with 6K Additive UniMelt microwave plasma technology.

Key Properties

- Electrical conductivity
- Thermal conductivity

Industries

- Aerospace
- Electrical
- Tooling
- Industrial



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, EBW, 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.

6K Additive's production team has extensive experience in powder production, alloys and metal reclamation. Our 85,000 sq. ft. facility is ISO9001 certified and AS9100 certification is in process.