

# BUILD BOLDLY

WITH 6K POWDERS

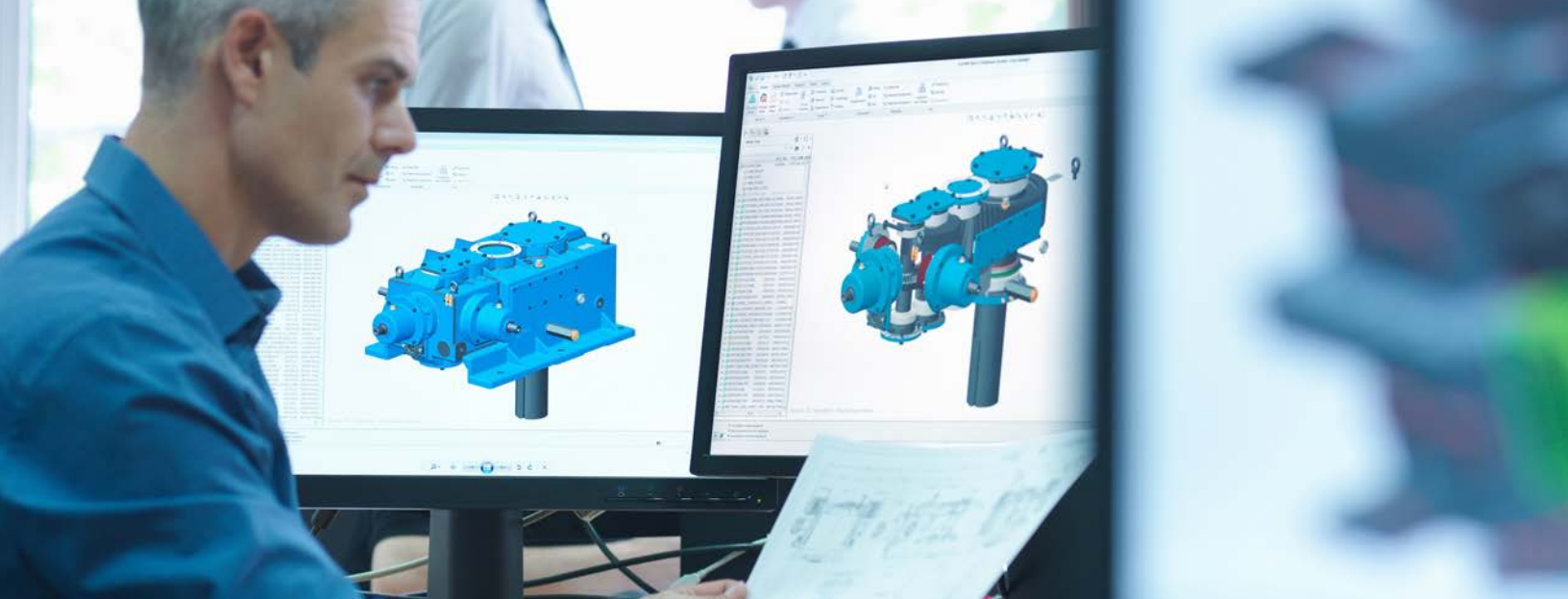
**BUILD WITH INFINITE  
OPTIONS**

**BUILD THE HIGHEST  
PERFORMANCE PARTS**

**BUILD SUSTAINABLY  
FOR THE CIRCULAR  
ECONOMY**



**6K** ADDITIVE



# IF YOU CAN THINK IT, WE CAN MAKE IT



## DESIGN OPTIMALLY FOR ANY PLATFORM

At 6K Additive a production run can be tailored to any additive manufacturing platform including powder bed, EBM, and binder jet, direct energy deposition and cold spray, plus PM processes like MIM and HIP.



## DESIGN WITH AN UNPRECEDENTED RANGE OF MATERIALS

Any metal or alloy that is machined can now become a feedstock for 6K Additive's premium powders. Design a new alloy that cannot be realized through conventional melt approaches.

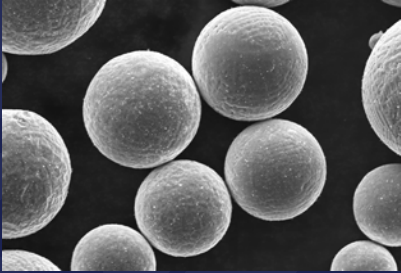


## IMPROVE PROJECT ROI, ADOPT NEW BUSINESS MODELS

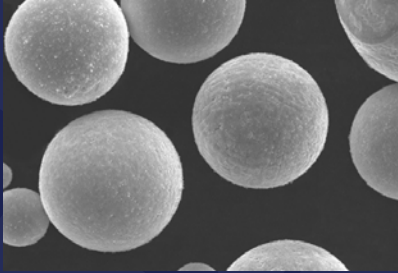
Rejuvenate used powders. Control & optimize your supply chain, by transforming "waste" from your subtractive manufacturing processes into powder for AM.



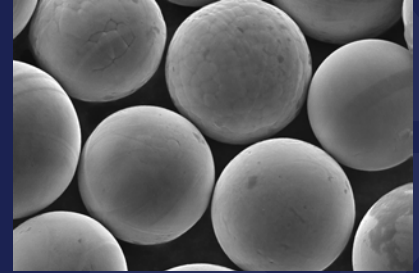
# BUILD WITH INFINITE POSSIBILITIES



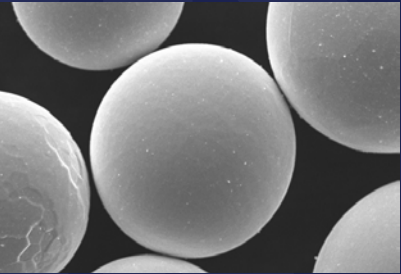
NICKEL 718



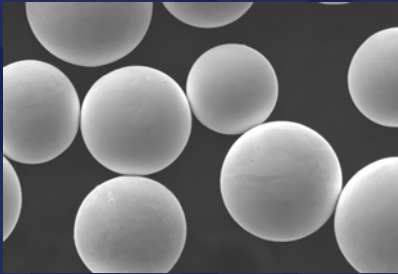
NICKEL 625



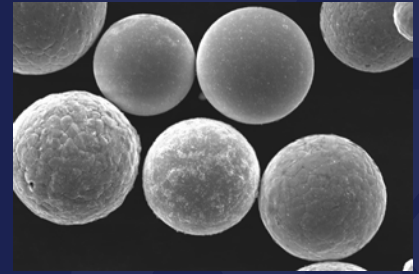
Ti6Al4V



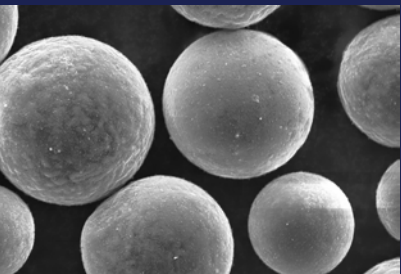
MOLYBDENUM



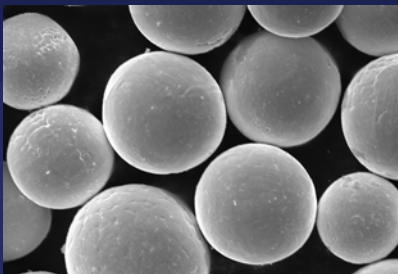
RHENIUM



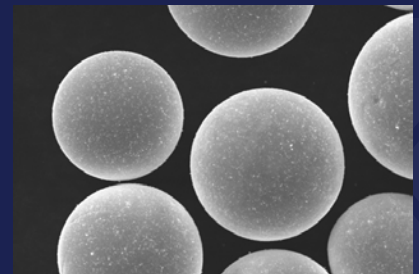
STAINLESS STEEL SS 316L



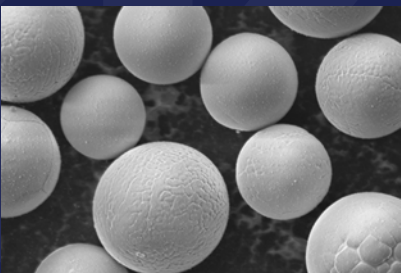
ALUMINUM AlSiMg



TANTALUM



TUNGSTEN



8% YTTRIA STABILIZED ZIRCONIA

## THE PERFORMANCE OF UNIFORM PLASMA

6K Additive continues to expand the portfolio of best in class spherical, no satellite powders in any powder size distribution.

# UNIMELT: THE WORLD'S ONLY MICROWAVE PLASMA PRODUCTION TECHNOLOGY

The most advanced production plasma system in the world, 6K's UniMelt® uses high-frequency microwave plasma to produce advanced materials across a series of industries and applications.

## THE POWER OF UNIMELT GOES FAR BEYOND ADDITIVE MANUFACTURING



BATTERIES & STORAGE



SPECIALTY CERAMICS



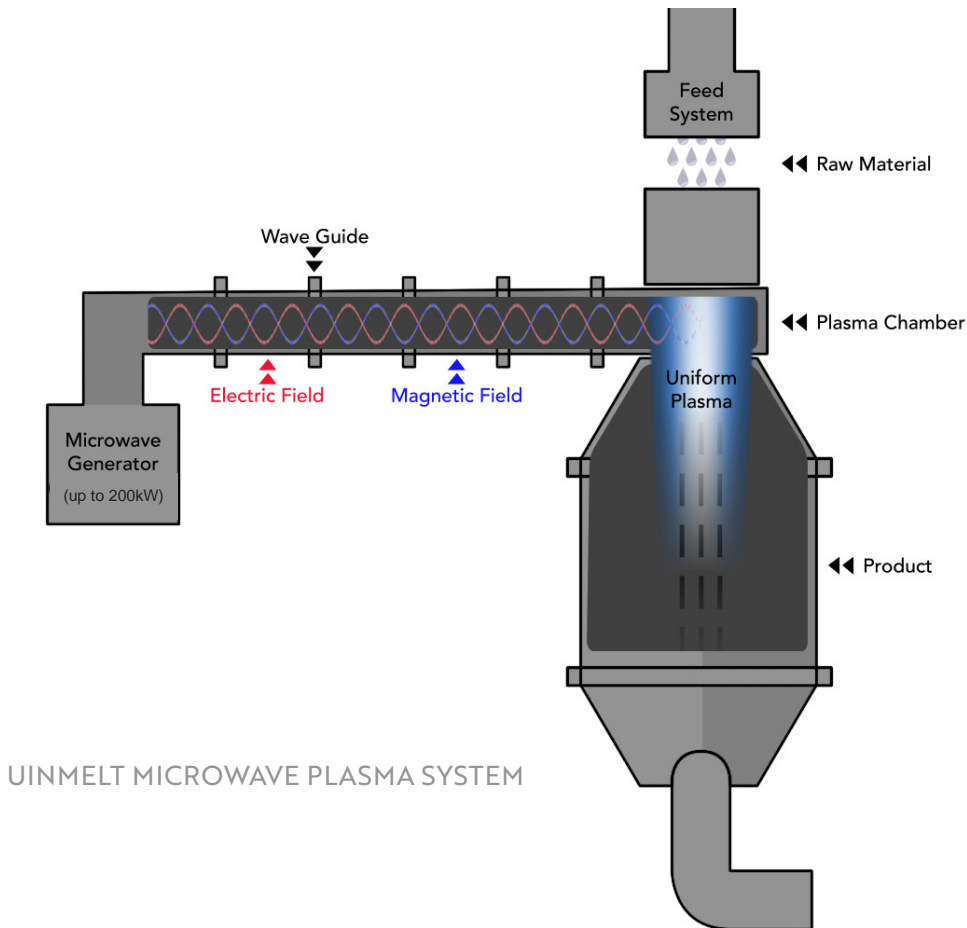
LIGHTING & DISPLAYS



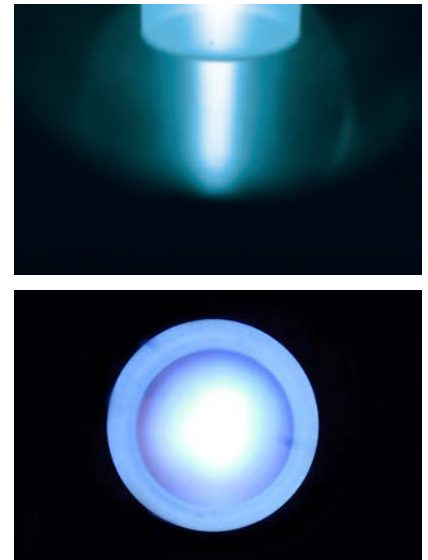
AEROSPACE & DEFENSE

# UNIQUELY 6K

UniMelt is **Not** Gas Atomization (GA) or Plasma Atomization (PA). The world's only **microwave-based plasma** metal powder production system.



UNIMELT MICROWAVE PLASMA SYSTEM

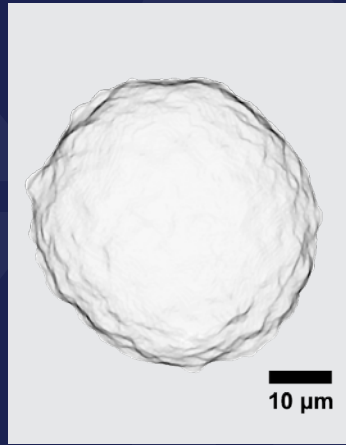


THE MOST UNIFORM & PRECISE PLASMA IN THE WORLD

## AT 6000 DEGREES, UNIMELT IS CAPABLE OF PRODUCING LIMITLESS POWDER POSSIBILITIES

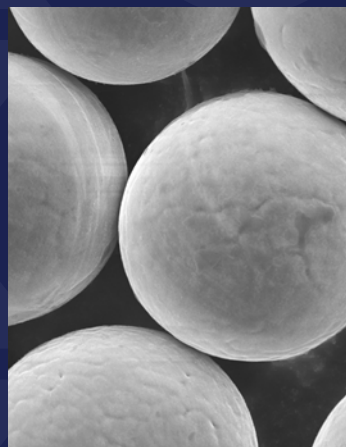
- Highly-uniform plasma production zone
- Continuous, zero-contamination process
- 99%+ efficiency (microwave to plasma)
- Inert, reducing, and oxidizing atmospheres

# BUILD WITH CONFIDENCE USING 6K POWDERS



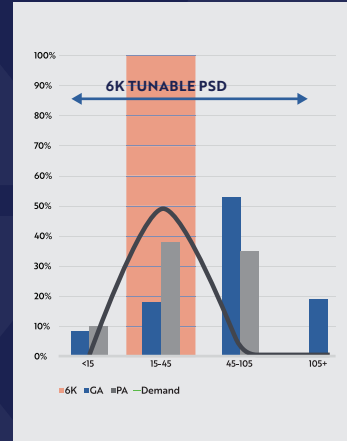
## HIGH-DENSITY POWDERS

Unlike competitive technologies, 6K Additive's process delivers fully dense, highly-spherical powders without porosity.



## HIGH SPHERICITY & NO SATELLITES

6K Additive's process delivers the highest quality powder with high-sphericity void of any satellites.



## HIGH YIELD & TUNABLE PSD

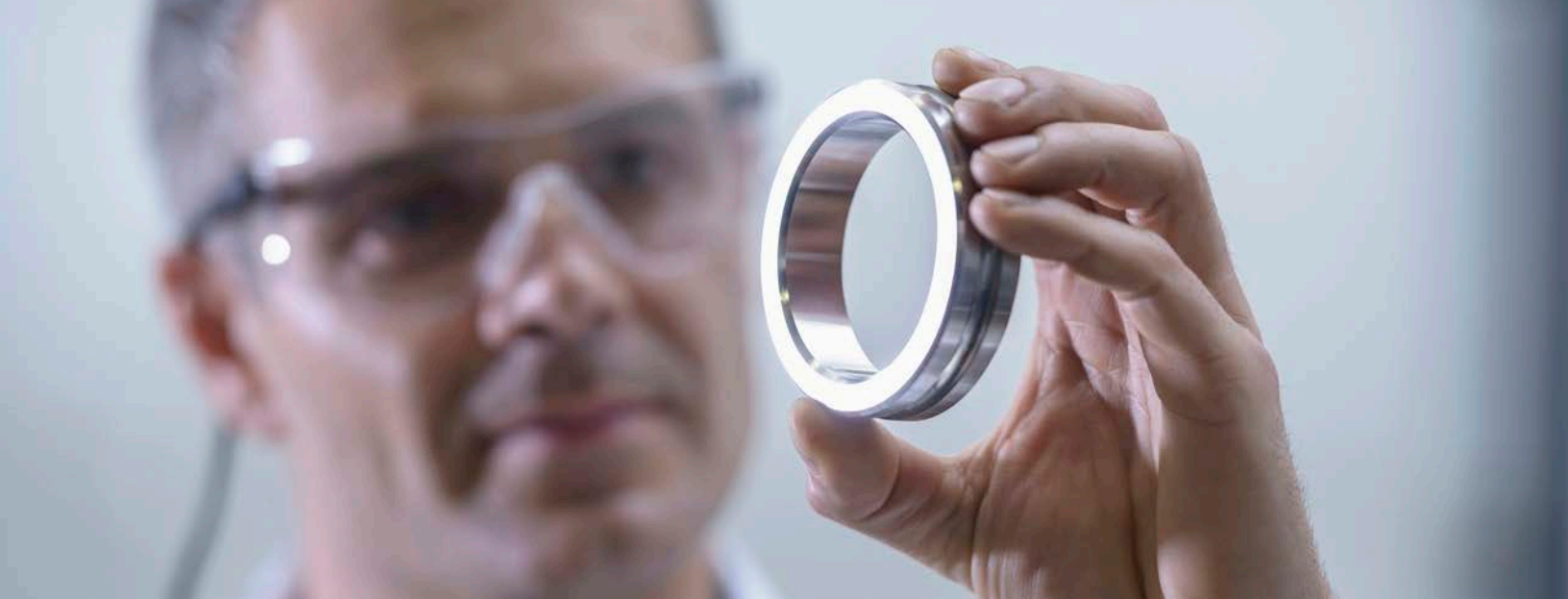
6K's UniMelt process can deliver yields into the target PSD for a sustainable process delivering exactly what our partners require.



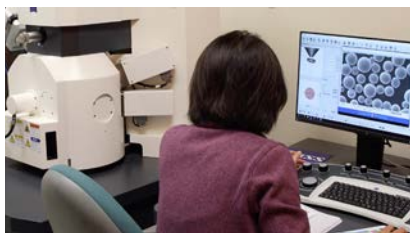
## FREE FLOWING POWDER

6K's process produces powders with high flowability and spreadability, ensuring maximum production in an AM system.



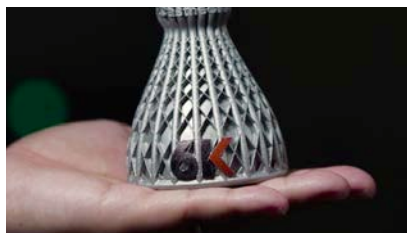


# HIGHEST PERFORMING POWDERS BACKED BY STRINGENT QUALITY CONTROL



## COMPREHENSIVE POWDER ANALYSIS & QC

Highest performing powders backed up by rigorous quality control: micro-CT, gas analysis, ICP, XRD, SEM, EDS.



## 3D PRINTED PERFORMANCE & TESTING

Meeting or exceeding ASTM and AMS standards



## POWDER TRACKING & TRACING

Industry-standard methods for powder blending, lot control, and packaging.

# HIGH VOLUME PRODUCTION SCALE MICROWAVE PLASMA SYSTEM

Highly reliable premium powder  
production



## THE WORLD'S MOST CAPABLE PLASMA PRODUCTION SYSTEM, ENGINEERED FOR:

- Up to 100 tons per year
- Continuous feed process not limited by wire or ingot feedstock
- Capable of processing ceramics, metals, alloys, and thermoplastics
- Highly-uniform plasma zone
- High uptime systems, recipe-driven, remote operation
- Nano through 100s microns





## 6K ADDITIVE'S PRODUCTION TEAM HAS EXTENSIVE EXPERIENCE IN ALLOYS, METAL RECLAMATION, AND POWDER PRODUCTION

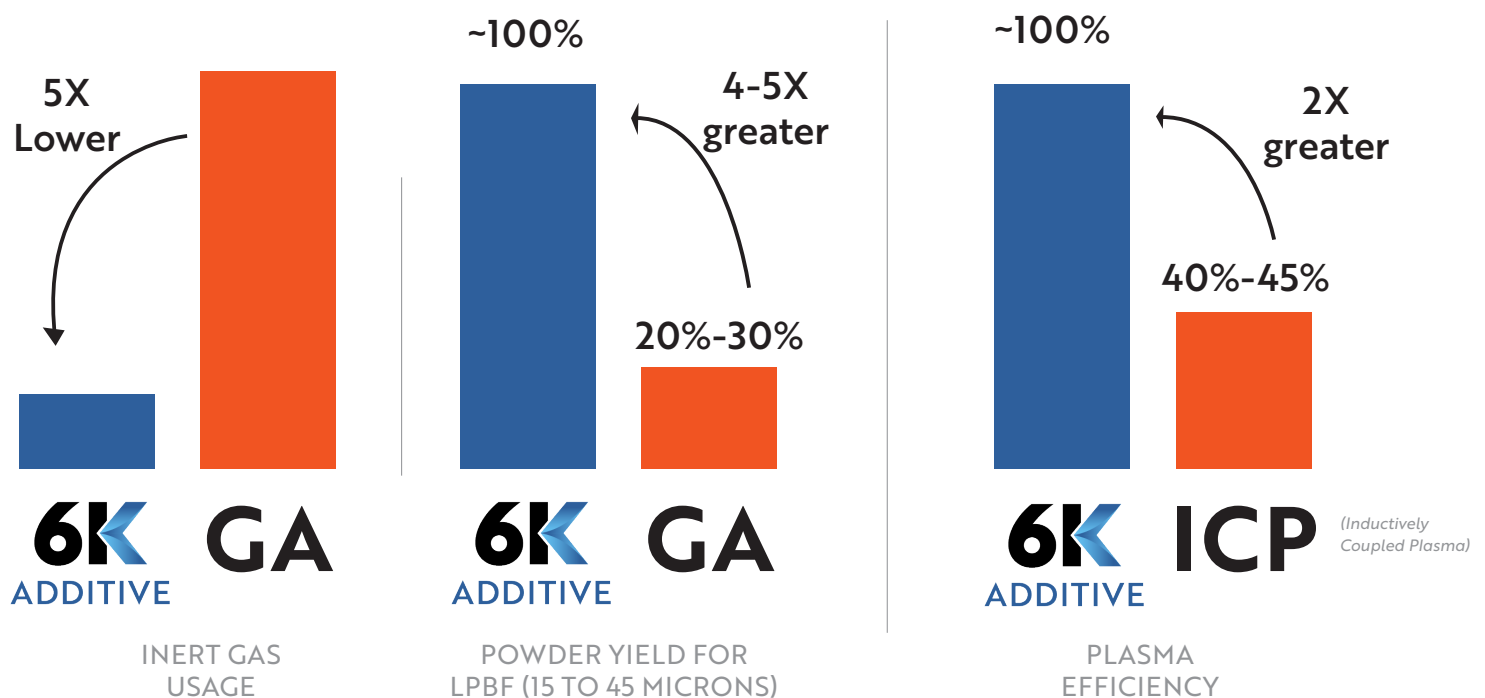
- ISO9001 facility
- AS9100 (in process)
- Over 1 million pounds of titanium sold per year as premium alloying compacts for aerospace, medical, and automotive industries
- 80,000 sq. ft. facility for metals conversion, alloys products, and AM powder production
- 48,000 sq. ft. new state-of-the-art powder production

# BUILD SUSTAINABLY

Better powders, better parts,  
with a better business model –  
all done sustainably.

## POWDER PRODUCTION EFFICIENCIES

6K produces powders in a dramatically  
more sustainable process than conventional  
powder processes.

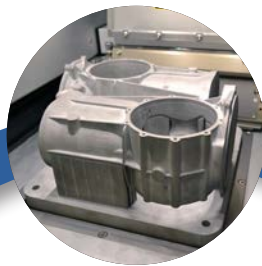






## DRIVING THE CIRCULAR ECONOMY

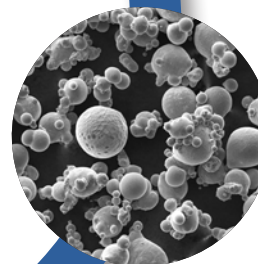
USE CERTIFIED  
CHEMISTRY  
MACHINING  
SCRAP



USE MATERIAL FROM  
FAILED PRINTS

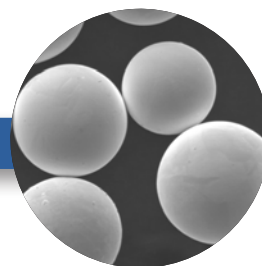


USE SUPPORT  
STRUCTURES

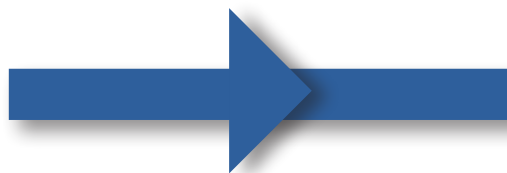


REJUVENATE  
USED POWDERS

**6K**  
ADDITIVE



PREMIUM  
POWDERS





At 6K, we're breaking the bounds of chemistry to develop engineered materials into revolutionary products that will advance industries across additive manufacturing, renewable energy, aerospace, consumer electronics, and more. With 6K's advanced microwave plasma technology and sustainable processes, you can bring your innovations from ideation to development at speeds never before possible. We tailor-make the purest, best-in-class materials all with sustainability as a focus regardless of the industry we serve.

At 6K, we've assembled a team of material, process and production experts to deliver materials for today, tomorrow, and beyond. Whether it's in our innovation labs in Massachusetts or our production facility in Pennsylvania, our patented 6K technology and sustainable processes enable you to convert an infinite combination of materials that accelerate ideation and enable limitless possibilities.



## **CORPORATE HEADQUARTERS**

25 Commerce Way,  
North Andover, MA 01845



## **GLOBAL MANUFACTURING CENTER**

541 Steubenville Pike,  
Burgettstown, PA 15021