PLASMA ATOMIZED SPHERICAL METAL POWDERS

SIZE CUTS FOR Ti-6Al-4V GRADE 5 & 23:

- 25 µm/+ 5 µm
- 45 µm/+ 15 µm
- 53 µm/+ 20 µm
- 106 µm/+ 45 µm
- 250 µm/+ 106 µm

Applications:
- Additive Manufacturing
- Metal Injection Molding
- Thermal Spray

Industries:
- Biomedical
- Aerospace

Custom materials & size cuts available upon request.

Inventor of the Plasma Atomization Process

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PyroGenesis Additive, a division of PyroGenesis Canada Inc., specializes in providing plasma atomized spherical metallic powders for the Additive Manufacturing industry. PyroGenesis Canada Inc. is a world-renowned high-tech company operating in the field of high temperature processing of materials and waste, which counts the US Navy and the US Air Force amongst its discerning client base.

Providing Plasma Atomized Metal Powders to Industries
www.pyrogenesis.com • ISO 9001:2015 & AS9100D Certified

The Plasma Atomization Process in 4 steps

1. Wire feed offers optimal traceability
   Plasma atomization uses wire as a feedstock, which is ideal for traceability from the ingot to the final powder product. Tight quality control of the wire chemistry ensures batch-to-batch consistency.

2. The best atomization method, period
   As opposed to conventional gas atomization, plasma atomization uses three plasma torches to instantaneously melt and atomize the wire in a single step. The intense heat of the plasma maintains the droplets well above their melting point throughout multiple phases of breakup, which increases the yield of very fine particles.

3. A smooth cool-down: spherical powders
   Once droplets are formed, they require some time to assume the most stable shape: a sphere. The cooling tower provides a low velocity and low turbulence environment that allows the particle to spheroidize perfectly.

4. Purity
   A chemically pure powder is collected at the bottom of the reactor. The powder is sieved and then undergoes multiple analyses before being blended and packaged.

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