

INLAND ATOMIZE METAL POWDER LLP

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Tungsten (W) Powder

IAMP is specialist to supply Tungsten powders, which meets specific technical requirements such as Apparent Density, Specific Surface Area and Purity. Tungsten powder is the best materials to suppress mechanical parts, structural parts and welding materials.

Physical Properties of W powder:

Molecular Formula:	W	Color:	Grey-black metallic
Shape:	Irregular / angular	Purity:	99.7%
Product method:	Hydrogen reduction	Molecular Weight:	183.84 g/mol
Freezing/Melting Point:	3422°C	Boiling Point:	5555 °C
Specific Gravity/Density:	19.3 g/cm3		

Applications:

- **Powder Metallurgy (PM):** Production of tungsten heavy alloys (W–Ni–Fe, W–Cu) for aerospace and defense. Electrical contacts, switching devices, and electrodes. High-density counterweights, balance weights, and vibration dampers.
- **Additive Manufacturing (AM):** Complex high-density parts for nuclear, aerospace, and defence applications. Radiation shielding and medical imaging components.
- **Thermal Management:** Heat sinks and thermal spreaders for electronics and semiconductor industries.
- **Energy & Nuclear Industry:** Nuclear reactor components and radiation shielding due to very high density. Plasma-facing components in fusion reactors.
- **Tungsten Carbide Production:** Primary raw material for WC powders, used in cutting tools, mining bits, and wear parts.
- **Electronics & Electrical Applications:** Filaments for lamps and electron tubes. Electrical heating elements. Field emission cathodes.

Specification:

Grade	1.5 µm	3.0 µm	3.6 µm	5.0 µm
FSS Particle Size	1.1-1.7	2.5 – 3.5	3.2 – 4.2	4.5 – 5.5
Scott Density, g/ln3	30 – 45	55 – 70	60 - 72	58 – 70
Tap Density, g/cm3	4.0 – 4.5	5.5 – 70	5.0 – 7.5	5.5 – 7.5
Screen Size	-150 Mesh	-150 Mesh	-150 Mesh	-150 Mesh
Oxygen Content, Wt %	0.15	0.12	0.10	0.10

Packaging:

Powder will be supplied by standard packing in Vacuum bag of 5Kg, 10Kg, and 25Kg or can be supplied as per customer special requirement.

Storage:

Keep in a cool, dry, and well-ventilated environment, away from humidity and corrosive atmospheres. Avoid direct contact with water, acids, and oxidizing agents that may cause surface oxidation. Containers must be closed immediately after use to preserve powder flowability and prevent agglomeration. Store away from heat sources, sparks, or open flames, as very fine tungsten powder can be combustible in air.

**Specification is only for Reference purposes, and it varies with application requirements*