# INLAND ATOMIZE METAL POWDER LLP

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## IAMP H13

**Material**: Tool Steel (UNS T20813)
**Manufacturing Method**: Vacuum Induction Melting Inert Gas Atomization (VIGA)

### Chemical Composition (Weight %)

| Element | C | Si | Mn | P | S | Cr | Mo | V | Fe |
|---|---|---|---|---|---|---|---|---|---|
| Min | 0.32 | 0.80 | 0.20 | | | 4.75 | 1.10 | 0.80 | Bal. |
| Max | 0.45 | 1.25 | 0.60 | 0.030 | 0.030 | 5.50 | 1.75 | 1.20 | |

### Powder Characteristics

- **Particle Shape**: Spherical (high sphericity due to gas atomization)
- **Flowability**: Excellent, suitable for additive manufacturing and powder metallurgy
- **Oxygen Content** : Extremely Low Oxygen content due to VIGA technology
- **Tap Density (g/cc)**: 4.60 Min.

### Particle Size Distribution

| Application | MIM | 3D Printing/LPBF | Binder Jetting |
|---|---|---|---|
| Size Range | < 22 µm | 15 – 53 µm | <25 µm |
| D90 | 22.0 Max | 54.0 Max | 25.0 Max |
| D50 | 13.5 Max | 37.0 Max | 15.0 Max |
| D10 | 6.0 Max | 25.0 Max | 6.5 Max |

*Customize particle size can be made upon request*

### Key Features

- Provides excellent flowability, uniform layer deposition, and consistent packing density.
- Superior mechanical performance, toughness, and wear resistance.
- Suitable for high-strength and high-wear applications with controlled heat treatment response.
- Widely used in die casting, injection molding, cutting tools, hot & cold work tools, and additive manufacturing of complex tooling components.

### 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 environment, away from direct sunlight, humidity, and corrosive atmospheres.

Containers must be tightly closed immediately after use to maintain powder flowability and prevent agglomeration.

Follow standard safety and handling protocols for fine metal powders, including dust control and ignition prevention.

*MIM: Metal Injection Molding, BJ: Binder Jetting , LPBF: Laser Powder Bed Fusion*
*Specification is only for Reference purposes, and it varies with application requirements*