

INLAND ATOMIZE METAL POWDER LLP

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IAMP Stellite 6

Material: Cobalt Base Super Alloy (UNS R30006)

Manufacturing Method: Gas Atomization

IAMP Stellites 6 is a cobalt-based chromium alloy powder known for its excellent wear resistance, galling resistance, and corrosion resistance at both ambient and elevated temperatures. It is widely used for thermal spray, PTA, laser cladding, and weld overlay applications.

Chemical Composition (Weight %)

Element	C	Si	Mn	P	S	Cr	Ni	Mo	W	Fe	Co
Min	0.90					27.00			3.50		Bal.
Max	1.40	1.50	1.00	0.040	0.040	31.00	3.00	1.50	5.50	3.00	

Key Features

- Excellent metal-to-metal wear and galling resistance
- Spherical Shape due to gas atomization process
- Suitable for HVOF, Plasma Spray, PTA, and Laser Cladding processes
- Compatible with multiple hard facing processes and offers good machinability with carbide tools.
- Good abrasion and erosion resistance
- Maintains hardness at elevated temperatures
- Very good corrosion and oxidation resistance
- Produces dense coatings with strong metallurgical bonding
- As deposited Hardness is 35 – 45 HRC
- Apparent Density 4.00 g/cc Min

Particle Size

- Flame Spray: 45 – 106 μm / 20 – 106 μm
- HVOF: 15 – 45 μm
- PTA (Plasma Transferred Arc) / Laser Cladding: 45 – 150 μm
- Custom made particle size can be made upon request

Packaging:

Powder will be supplied by standard packing in Plastic Jar of 1Kg, 5Kg, and 25Kg or can be supplied as per customer special requirement.

Storage:

- Keep in a cool, dry environment away from humidity
- Tumble container before use to ensure powder homogeneity
- Reseal containers immediately after powder withdrawal
- If moisture pickup occurs, dry at 65–95 °C for 120 Minutes with lid loosened
- Remove Silica Gel pouch before using the powder

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