

INLAND ATOMIZE METAL POWDER LLP

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IAMP Stellite 21

Material: Cobalt Base Super Alloy (UNS R30021)

Manufacturing Method: Gas Atomization

IAMP Stellite 21 is a cobalt-based chromium-molybdenum alloy powder designed for applications requiring excellent corrosion resistance, galling resistance, and toughness.

Compared to other Stellite grades, it offers lower hardness with superior ductility and impact resistance, making it ideal for severe service and thermal cycling environments.

Chemical Composition (Weight %)

Element	C	Si	Mn	P	S	Cr	Ni	Mo	W	Fe	Co
Min	0.15					25.00	1.50	4.50			Bal.
Max	0.45	1.50	1.50	0.040	0.040	29.00	4.00	6.50	0.50	3.00	

Key Features

- Superior resistance to galling and metal-to-metal wear
- Spherical Shape due to gas atomization process
- Excellent corrosion resistance, including chloride environments
- High toughness and resistance to thermal shock
- Good machinability with carbide tooling
- Crack-resistant coatings suitable for thick deposits
- Performs well under impact and cyclic loading
- As deposited Hardness is 27 – 40 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