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INDO-SPHERE Tool Steel-D2

D2 is a high-carbon, high-chromium, air-hardening tool steel that is known for its balanced combination of abrasion resistance, toughness and good hardness. Vacuum Induction Melting - Inert Gas Atomization process is used at INDO-MIM for manufacturing of powder. Our unique ASB technique improves powder sphericity, which enhances flowability in achieving consistent density and uniform build rates.

Particle Size Distribution

Light scattering (ASTM B822 / ISO 13320-1)				
Application	Size Range	D10%	D50%	D90%
MIM	<22µm	5.0 max	12.0 max	22.0 max
BJ	<25µm	5.5 max	13.5 max	25.0 max
LPBF	15 – 53µm	24.0 max	36.0 max	54.0 max

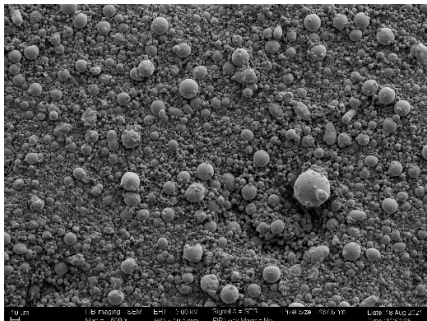
Chemical Composition (weight %)

Element	Range (%)
Carbon	1.40 – 1.60
Silicon	0.10 – 0.60
Manganese	0.10 – 0.60
Phosphorous	0.03 max
Sulphur	0.03 max
Chromium	11.0 – 13.0
Molybdenum	0.70 – 1.20
Vanadium	0.70 – 1.10
Iron	Balance

Physical Properties

Property	g/cc	Test Method
Tap Density	4.69 min	ASTM B527
True Density	7.66 min	ASTM B923

Morphology



Customization on chemical composition & particle size can be made.

Packing with 10 / 50 / 100 kg containers & custom packing is possible.

MIM: Metal Injection Molding | BJ: Binder Jetting | LPBF: Laser Powder Bed Fusion

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