

INDO-SPHERE Ni-HX

NiHX is a high-temperature and corrosion-resistant nickel-based solid solution strengthened alloy. This alloy has outstanding resistance to oxidation at high temperatures and possesses exceptional strength at elevated temperatures. Its chemical composition corresponds to UNS N06002 for use in additive manufacturing processes. 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.

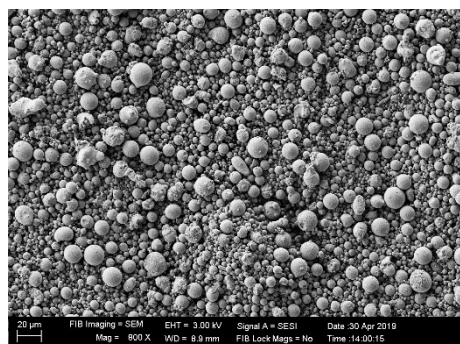
Particle Size Distribution

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

Physical Properties

Property	g/cc	Test Method
Tap Density	4.80 min	ASTM B527
True Density	8.20 min	ASTM B923

Morphology



Chemical Composition (weight %)

Element	Range (%)
Carbon	0.05 – 0.15
Silicon	1.00 max
Manganese	1.00 max
Phosphorous	0.04 max
Sulphur	0.03 max
Chromium	20.5 – 23.0
Molybdenum	8.0 – 10.0
Cobalt	0.50 – 2.50
Iron	17.0 – 20.0
Tungsten	0.2 – 1.0
Nickel	Balance

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*