

PLM-18Ni300

PLM-18Ni300 (Maraging Steel 300) is characterized by having very good mechanical properties and being easily heat-treatable using a simple thermal age-hardening process to obtain excellent hardness and strength. Its chemical composition corresponds to ASTM A646-Marage 300 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	5.8 max	13.0 max	25.0 max
LPBF	15 – 53µm	24.0 max	36.0 max	54.0 max

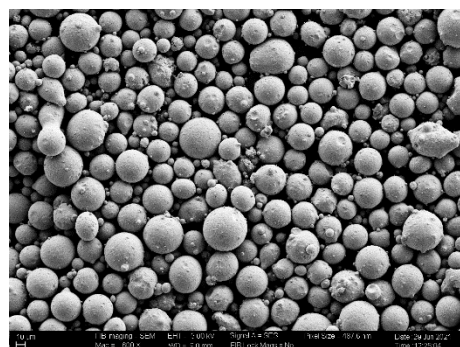
Chemical Composition (weight %)

Element	Range (%)
Carbon	0.03 max
Silicon	0.10 max
Manganese	0.10 max
Phosphorous	0.010 max
Sulphur	0.010 max
Nickel	18.0 – 19.0
Molybdenum	4.70 – 5.20
Cobalt	8.50 – 9.50
Titanium	0.50 – 0.80
Aluminium	0.05 – 0.15
Iron	Balance

Physical Properties

Property	g/cc	Test Method
Tap Density	4.80 min	ASTM B527
True Density	8.00 min	ASTM B923

Morphology



Customization on chemical composition & particle size can be made.

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