

INDO-SPHERE SS-410L

SS-410L is Ferritic stainless steel used in critical engineering and industrial applications. Its chemical composition corresponds to UNS S41003 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

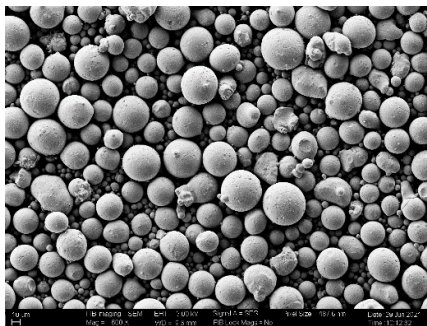
Physical Properties

Property	g/cc	Test Method
Tap Density	4.60 min	ASTM B527
True Density	7.60 min	ASTM B923

Chemical Composition (weight %)

Element	Range (%)
Carbon	0.03 max
Silicon	1.00 max
Manganese	1.50 max
Phosphorous	0.040 max
Sulphur	0.030 max
Chromium	10.50 – 12.50
Nickel	1.50 max
Others	0.50 max
Oxygen*	0.06 max
Nitrogen*	0.12 max
Iron	Balance

Morphology



* Applicable only for LPBF

Customization on chemical composition & particle size can be made.

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