

# PLM-410L

PLM-410L is martensitic 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%
<b>MIM</b>	<22µm	5.0 max	12.0 max	22.0 max
<b>BJ</b>	<25µm	5.5 max	13.5 max	25.0 max
<b>LPBF</b>	15 – 53µm	24.0 max	36.0 max	54.0 max

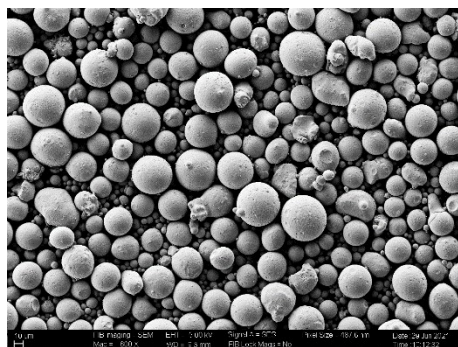
## Physical Properties

Property	g/cc	Test Method
<b>Tap Density</b>	4.60 min	ASTM B527
<b>True Density</b>	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.