

# INDO-SPHERE F75 (Co-Cr-Mo)

F75 is a cobalt-chromium-molybdenum superalloy with excellent mechanical properties, high wear and corrosion resistance, proven biocompatibility, and a very high specific strength as well. Its chemical composition corresponds to UNS R30075 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

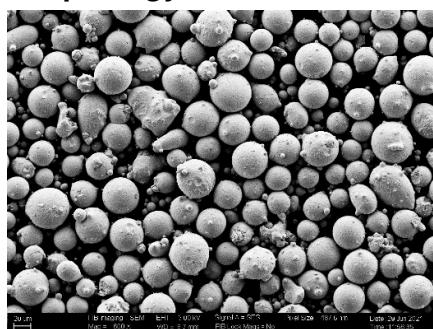
## Chemical Composition (weight %)

Element	Range (%)
Carbon	0.35 max
Silicon	1.00 max
Manganese	1.00 max
Phosphorous	0.02 max
Sulphur	0.01 max
Chromium	27.00 – 30.00
Molybdenum	5.00 – 7.00
Nickel	0.50 max
Iron	0.75 max
Tungsten	0.20 max
Titanium	0.10 max
Aluminium	0.10 max
Boron	0.01 max
Oxygen*	0.06 max
Nitrogen*	0.25 max
Cobalt	Balance

## Physical Properties

Property	g/cc	Test Method
Tap Density	5.10 min	ASTM B527
True Density	8.20 min	ASTM B923

## 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.